SHIFTING PARADIGMS IN GROUP PSYCHOTHERAPY

by

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submitted as partial fulfilment of the requirements
for the degree of

MASTER OF ARTS IN CLINICAL PSYCHOLOGY

in the

DEPARTMENT OF PSYCHOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

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NOVEMBER 1992

ACKNOWLEDGEMENTS

I would like to acknowledge the following people for their contributions to this study:

- Mrs. Santjie Genot, my supervisor, for her infinite patience, assistance, ideas, and understanding.

- My wife, Marthy, and my son, Gian, for being there for me.

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SUMMARY

The mid-1900's saw a shift in thinking within the social sciences away from the then dominant Newtonian worldview of linear causality, towards thinking in terms of circular causality. With the development of the new systemic epistemology, and the subsequent shift towards second-order cybernetics and evolutionary theory, new concepts were created to elucidate the processes whereby man constructs reality.

This study considers the relevance of second-order cybernetics and the evolutionary theory as descriptive metaphors for both the pragmatics and aesthetics of group psychotherapy. A recursive relationship between theory, description and intervention is conceptualized, and it is concluded that the theoretical constructs in question serve as complementary sides of a systemic coin in the description of group therapy processes and the application thereof to the group therapy context.

CHAPTER 1

INTRODUCTION: TOWARDS A CONCEPTUAL MAP FOR GROUP THERAPY

For many years, group therapy was practiced as a method of choice by only a handful of dedicated therapists. Other therapists used it primarily because their caseload was so heavy that group therapy was the only means by which they could deal with the overload. Still other therapists used group therapy as a supplementary technique. In recent years, however, group methods have achieved considerably more visibility and respectability within certain psychological schools of thought.

It was the aftermath of World War II that really brought group methods to the centre stage. At the time the demand for counselling and therapy increased sharply because of the large number of war veterans. The limitations of the existing agencies and hospital facilities made it necessary to employ group methods in order to cope with the demand. Once these methods had gained a foothold in the terrain of pragmatism, theoretical respectability was but a short distance away. As a result, nearly every school or approach to individual psychotherapy now has its group counterpart (Phares, 1984).

A brief description of the existing group therapy models is deemed necessary in order to demarcate conceptual boundaries and create the context against which alternative perspectives can be introduced.

Current Group Therapy Models

The approaches to be discussed, although distinct in character, are all based on the assumptions of a linear Newtonian epistemology. In referring to the respective models, emphasis will be placed on the underlying rationale, conceptualizations of change and the therapeutic position of the group therapist.

Psychoanalytic group therapists conceptualize the group as a holistic psychological entity (Whitaker & Lieberman, 1965), and aims at the interpretations of transferences and resistances for the freeing up of unconscious material and repressed experiential material that cause symptomatic behaviour. Change is conceptualized as occurring at the point at which the group member arrives at insight, a person's conscious realization and understanding of his/her own or another person's abilities, psychological processes, feelings and motives. The therapist is instrumental in this process of achieving insight through the interpretations he or she makes, based on his or her understanding of transferences and resistances within the group.

The Gestalt group therapy context provides an environment where interaction can take place between group members, and between members and therapist. Polster and Polster (1973) point out that free interaction reveals how people make contact with one another, and that absence of good contact can be explored in the group context.

Pathology is conceptualized as an inability to deal effectively with problems, and thus an ineffective perceptual

organization. By urging group members to experience themselves in the here-and-now and to focus on "what" is happening, "how" it is happening, and how it could be different, the therapist guides the members towards phenomenological learning and awareness. Change occurs with awareness. The primary tasks of the therapist in this regard are to observe, listen, give feedback, and guide members towards greater self-awareness.

Rational-emotive group work is based on the rational-emotive therapy of Ellis (1962), and views emotional disturbance as the result of disturbed thinking (perceptions), poor logic, exaggeration of real situations, and a philosophy of life that leads to self-defeating situations. The therapeutic objective is change in the symptom producing, usually cognitive, factors. The therapist analyzes the client's feelings of hurt, anger, guilt and fear, and shows "him that these emotions arise not from past events or external situations but from his present irrational attitudes or illogical fears about these events or situations" (Ellis, 1962, p.3).

Berne's (1961) transactional analysis states that early childhood experiences are the basis for life scripts which the client uses in adulthood. Early in life, a child selects a "life position" based on how he can best adapt to his environment. Based on the life position, a life plan is devised that guides decisions about how to use time and how to obtain strokes from others.

Berne's (1961) underlying assumption is that cognitive understanding of oneself is the basis for making changes during the therapeutic process. Three ego states are distinguished,

that is Parent, Child, and Adult, and transactional analytical group therapy involves the determination of which ego states are operative in an interaction between people by the therapist observing group interaction, and the developing and enhancing of the Adult ego state. The primary role of the TA therapist is that of teacher, guiding members toward greater cognitive understanding of themselves and facilitating the manifestation of alternative ego states.

In his client-centered approach, Rogers' (1957) underlying therapeutic assumptions involve the idea that an understanding of an individual's internal and external operating forces allows one to determine the nature of the individual's personality dynamics and interpersonal relationships. Therapeutic change occurs when the client achieves congruence between self-regard and positive regard from others, thereby obtaining a sense of self-worth as a consequence of an unconditionally accepting therapeutic environment. The Rogerian group therapist is a facilitator of self-exploration and acts as a model by demonstrating effective interpersonal responses.

The behaviourist group therapist believes that all people are exposed to environmental and internal stimuli from birth, and that a person perceives and responds according to the characteristics of the stimuli, the situation, and their own state (Vander Kolk, 1985). Phares (1984, p.501) states that group therapy gives the individual patient "an opportunity to receive feedback from both the therapist and other patients, to observe other role models, to participate in role playing and role reversal, and to benefit from the motivation and social

reinforcement provided by the group". The therapist facilitates learning by positively reinforcing the behaviours group members wish to acquire (therapeutic goals).

Yalom's (1970) approach has a psychoanalytic conceptual framework, but incorporates other methods and concepts. Emphasis is placed on the interpersonal process of the group therapy context, including the developmental role played by the respective family systems.

Yalom (1970) lists ten factors that contribute to therapeutic change in a group member. These include imparting information in the therapeutic context toward a cognitive understanding of self and events, an awareness of the universality of problems, the therapeutic utilization of childhood and familial experiences, the development of social skills in the group, imitating therapist or group member behaviour (modelling), interpersonal learning and catharsis in an interpersonal setting.

According to Yalom (1975), the therapist works in the therapeutic "here-and-now", and his/her role is to develop an atmosphere that facilitates the curative factors and cohesion in the group.

Towards an Ecosystemic Epistemology

In the spirit of Einsteinian relativity, the mid-1900's saw a shift in thinking within the social sciences away from the then dominant Newtonian worldview of linear causality, towards

thinking in terms of circular causality. Two distinct perspectives developed concurrently: Bateson's (1972) systemic epistemology, influenced amongst others by the cybernetics of Wiener, and Von Bertalanffy's General Systems Theory. Von Bertalanffy (1968) considered his General Systems Theory to be more comprehensive than the cybernetic model of closed systems as homeostatic mechanisms, which he felt was restricting since it did not explain change and the evolution of systems.

Subsequent to this initial epistemological shift, there were a number of developments within the systemic epistemology, for example the Palo Alto school of strategic therapy (Watzlawick, Beavin, & Jackson, 1967), and the structuralism of Salvador Minuchin.

The Milan school, influenced by the work of Bateson and the second-order cybernetics of Maturana and Varela, identified certain shortcomings in the simple cybernetic model of the strategic therapists, and adopted a truly ecosystemic epistemology of recursiveness and observer-inclusiveness. Yet another theoretical development, although rooted firmly in the natural science of physics, was the evolutionary perspective of dissipative structures of Prigogine (1976).

In the same way that thinking underwent an epistemological shift in the greater field of the social sciences, there was also an epistemological shift in the field of group therapy, away from the traditional linear Newtonian models towards applying the newly emerging principles to the group therapy context. This shift was initiated by the American Group Therapy Association's (AGPA) Task Force during the 1960's, and utilized Von Bertalanffy's General Systems Theory.

Subsequent to this epistemological shift, developments in the group therapy field seem to have remained confined to the General Systems paradigm. Very few attempts have been made to venture beyond these boundaries.

Rationale for the Study

The theoretical perspectives to be applied to the group context in this study are the second-order cybernetics of Maturana and the evolutionary perspective of Prigogine: These theories were selected due to the complementary descriptive metaphors they avail the group therapist in describing and intervening in group processes, since it is postulated that descriptions and interventions form a coherence due to their interlocking, recursive relationship.

The two theoretical perspectives, which will form the conceptual framework of this study, are currently utilized in the domain of family therapy, but as yet, have not been formally applied to the group therapy context. True to the second-order cybernetic principles, the study is presented from a self-referential perspective, and attempts to remain faithful to this central premise of observer-inclusiveness.

The fundamental question which will guide this study is to explore whether two distinctly different but complementary theories can be utilized as descriptive metaphors in order to recursively generate and facilitate therapeutic interventions in group therapy.

Whereas Maturana (1978) advocates a structure-determinism, that is, structure being central and therefore determining process, Prigogine (1978) considers process as being the central principle determining structure. At face value these two theories appear to refer to two separate aspects (structure versus process). However, from the second-order cybernetic perspective of recursiveness, structure and process appear as two sides of a systemic coin, where the conceptualization of one's predominance over the other is a mere distinction drawn by the observer.

Dell and Goolishian (1981) state that both second-order cybernetics and the evolutionary perspective address themselves to evolving, nonlinear systems, thereby exemplifying the evolutionary paradigm. Whereas Maturana has focussed on how living systems form and maintain themselves, Prigogine has emphasized the processes by which thermodynamic systems continue to evolve and become more complex. Dell and Goolishian (1981, p.179) state that "whereas autopoiesis models the self-recursiveness of system-forming and system-maintaining processes, Prigogine's concept of dissipative structures provides a theoretical formulation for systems that evolve via discontinuous, self-transcendent leaps."

The second-order cybernetic perspective of Maturana is distinct from the underlying theoretical assumptions of the existing group therapy models discussed above, not merely by virtue of the fact it adheres to a cirular as opposed to a linear view of living process, but most notably by including the observer in that which is observed. Although Prigogine's

evolutionary theory does not subscribe to the principle of observer-inclusiveness, it complements Maturana's second-order cybernetics by offering evolutionary descriptions of group processes, in contrast to the morphostatic implications embedded in Maturana's theory.

Maturana's theory provides the therapist with metaphors to describe not only group processes, but also the group members' positions relative to their respective families-of origin and wider ecologies. The view of group members, and the group-as-a-whole, as autopoietic (self-creating) entities provides a conceptualization of the therapy group as a dynamic system in a process of creation and development, not distinct from, but rather, recursively connected to the larger ecology. The concept of "structural coupling" (Maturana, 1978) provides the metaphor by means of which ideosyncratic group and individual interactional processes can be described in their complexity, the description serving as the "skeleton" around which the subsequent interventions can be sculpted in coherence with the descriptions.

Therapist, group members, and the group, as entities, are conceptualized as organizationally closed, autonomous units. The group therapist introduces conditions which act as perturbations and thereby facilitates a climate which potentiates structural metamorphosis. Maturana and Varela's (1981) conceptualization of non-instructive interaction indicates to the group therapist that he/she can neither directly influence, nor be directly influenced by, the group members. In the group therapy context, change thus is operationalized not by instruction, but, rather,

by perturbation of members in order to effect structural change.

Therapeutic perturbations invite the structure-determined group member to change his/her structure in the face of a changing therapeutic environment. This process is recursive, conceptualized such that a perturbation from the group environment perturbs the organism towards structural change, the subsequent structural change acting as a perturbation for change in the group environment, and so on.

Prigogine's evolutionary theory provides the group therapist with the vocabulary for describing change as an evolutionary process within the group context. The therapy group, conceptualized as a dissipative structure, "draws its energy for growth from outside the system, but attains the conditions sufficient and necessary for discontinuous quantum leaps to new organizational structures from the fluctuations within the system." (Dell & Goolishian, 1981, p.179). This view allows the group therapist to conceptualize his/her interventions as amplifying group and individual fluctuations to a point beyond existing parameters (far away from equilibrium), in order for the group/individual to reorganize and thereby evolve towards a higher order of complexity (negentropy).

Prigogine's (1978) theory supplies the therapist with the language to describe the flow of energy into, out of, and within the systemic boundaries, enabling fluctuations to be amplified beyond the existing parameters towards higher orders of complexity. The emphasis, thus, is on the evolutionary process determining the system's structure.

Faithful to the second-order cybernetic view, the group therapist always includes him/herself in the description of evolutionary group processes.

This brief introduction to some central theoretical constructs in the second-order cybernetic and evolutionary perspectives gives an indication of the descriptive avenues created for group therapy, and the potential for interventions generated by these descriptions.

Structure of the Study

The following chapter (chapter 2) introduces the cybernetic movement (first-order cybernetics), and explains the evolution thereof. The essentials of Von Bertalanffy's General Systems Theory are discussed as preparation for the subsequent section on the application of General Systems Theory to the group therapy context. This discussion is followed by an exposition of the principles of the evolutionary and second-order cybernetic perspectives.

In chapter 3 the argument is developed further by considering the theoretical and technical/pragmatic applications of second-order cybernetics to the group context. Circular questioning is proposed as a potential format for group therapy, and an additional category is suggested which has specific relevance for the group therapy context.

Chapter 4 analyses an extract from a group therapy session held with a group of mothers of autistic children, and utilizes the second-order cybernetic and the evolutionary perspectives as

metaphors for describing group processes. The discussion is presented in such a way as to indicate the complementarity of these two relatively distinct theories.

The final chapter (chapter 5) concludes the study and considers the effectiveness thereof. The central thesis of the argument revolves around the conceptual recursiveness of influence between second-order cybernetic and evolutionary descriptions of group processes, and the interventions generated by these descriptions. Finally, shortcomings of the study are identified, and recommendations for further advances in the field of second-order cybernetic/evolutionary group therapy are made.

Throughout the development of the argument the reader should bear in mind that the opinions given are mere constructs of the author, and as such, attain meaning only in the second-order cybernetic context of self-reference.

CHAPTER 2

TOWARDS SYSTEMIC THINKING

Introduction

The introduction of the concept of cybernetics (Wiener, 1968) during the 1940's punctuated a new era in the conceptualization and description of interactional behaviour, and created a theoretical building block to be elaborated and built upon in psychotherapeutic practices.

This chapter first provides a brief description of simple or first-order cybernetics from which later, more complex cybernetic conceptualizations were developed. This initial discussion is followed by a discussion of the General Systems Theory of Von Bertalanffy (1968), not as a natural progression or product of simple cybernetics, but rather as a perspective which developed concurrently. A description of General Systems Theory is deemed necessary as it provides a foundation for a discussion of its application to the group therapy process. Applying General Systems Theory to group process was pioneered by Helen Durkin and the American Group Psychotherapy Association (AGPA) Task Force for the application of General Systems Theory to group therapy (Durkin, 1981).

The chapter is concluded with a section on the second-order cybernetic thinking of Maturana and Varela (1987). This section is aimed at providing the background for the following chapters

on the theoretical and pragmatic applications of second-order cybernetic thinking to group therapy processes.

First-order Cybernetics

Introduction

The introduction of cybernetic theory gave rise to a new therapeutic approach in which information was conceptualized as being part of a continuous feedback cycle in interactional sequences. Keeney (1983, p.61) states that the theory of cybernetics "belongs to the science of pattern and organization which is distinct from any search for material, things, force, and energy".

It was Norbert Wiener (1948) who first coined the term "cybernetics" during the 1940's. Wiener (1948) defined it as the science of control and communication, with the basic thesis that "society can only be understood through the study of the messages and the communication facilities which belongs to it" (p.18). Wiener's conceptualization of "cybernetics" can be said to be based on a machine-model, where the effective functioning of a machine depends on feedback of information concerning the results of its own actions as a part of the information on which it must continue to act. Wiener (1948) proposes that the same operation pertains to human behaviour. Thus, information is fed back into the system to create a closed control loop.

Feedback

Keeney (1983, pp.66-67) quotes Wiener's definition of feedback as follows:

> Feedback is a way of controlling a system by reinserting into it the results of its past performance. If these results are merely used as numerical data for the criticism of the system and its regulation, we have the simple feedback of the control engineers. If, however, the information which proceeds backward from the performance is able to change the general method and pattern of performance, we have a process which may be called learning.

The process by which the system maintains internal consistency in the face of feedback that is continuously reinserted into the system, is referred to by Jackson (1957) as homeostasis.

Homeostasis

Jackson (1957) conceptualizes homeostasis as a process by which a relatively consistent internal environment can be maintained, and he depicts family interaction as a closed informational system in which variations in output or behaviours are fed back in order to correct the system's response.

The emphasis in this model of cybernetic systems as homeostatic mechanisms is on the stability of the system and on the way in which the system tends towards a steady state of

equilibrium. Deviations that go beyond the system's calibrated limits are counteracted by negative feedback (self-correction), opposing the direction of the initial change that produced the feedback.

Jackson's (1957) conceptualization of homeostasis met with criticism from a number of authors, most notably Dell (1982). The latter notes that Jackson reifies the concept of homeostasis by employing a mechanistic descriptive metaphor in a concrete way. He continues to elucidate the dualism inherent in the concepts of homeostasis and feedback in that one aspect of the system is isolated from the other, and that one part of the system functions to maintain a particular stability of the system. Dell (1982) calls this function of one part in determining another part of the system "causal dualism" (p.26).

The implications of a dualistic/mechanistic conceptualization of human systems for therapy was that it placed the therapist in the position of being an expert with the ability to exercise direct influence on any particular part of the system, thereby applying unilateral control (Hoffman, 1981).

Keeney mentions that the term homeostasis, as used in discussing how processes of change lead to stability, is a "misnomer in that it is often taken to indicate some sort of 'steady state'" (p.69). In this respect, the term "homeodynamics" seems more appropriate, since it provides a double description of the cybernetic connection of stability and change (Keeney, 1983, p.69).

Stability and Change

Maruyama (Hoffman, 1981), in an attempt to propose an alternative to the homeostatic model, contended that the survival of any living system (self-maintaining entity) depends on both morphostasis (negative feedback) and morphogenesis (positive feedback). The latter refers to sequences that work to amplify rather than counteract deviation, with the emphasis on change rather than stability. The negative versus positive feedback debate, however, posed a sterile dichotomy, viewed against Bateson's (1972) description of the cybernetic explanation always being negative. In this regard, Hoffman (1981) points out that what can be regarded as negative feedback on one system level can also function as positive feedback on another. Bateson (1972) contended that negative feedback is only a partial arc or sequence of a more encompassing positive feedback process.

Keeney (1983, p.70) illuminates this by stating that "one cannot, in cybernetics, separate stability from change - both are complementary sides of a systemic coin. Cybernetic processes that change cannot be found without a roof of stability over its head. Similarly, stability will always be rooted in underlying processes of change.

General Systems Theory

Introduction

In 1947, Von Bertalanffy (1968) formulated the General

Systems Theory. He considered the latter as more comprehensive than the cybernetic model of closed systems as homeostatic mechanisms, which he felt was restricting since it did not explain change and evolution of systems. Von Bertalanffy (1968) was less concerned with concepts like homeostasis or equilibrium, but rather focussed on the processes by which systems become organized and evolved towards greater complexity, thereby developing a paradigm of living structure.

System Level

Von Bertalanffy (Von Bertalannfy & La Violetta, 1981) define a system as a series of interrelated elements, where a change in the nature of one element leads to change in the nature of all the components. Systems do not exist as separate or isolated entities, but form parts of hierarchies (Miller, 1978). The implication of this hierarchical organization is that every systems level forms a subsystem for the next higher-order level. These subsystems are conceptualized by Miller (1978) as follows:

- cells,
- organs,
- the organism,
- groups,
- organizations,
- communities, and
- supra-systems.

Isomorphy

One of the basic propositions of General Systems Theory (Von Bertalanffy, 1968) states that all forms of living structure, from cell to society, order themselves according to the same self-organizing principles and processes. This postulation is referred to as isomorphy, and refers to the identity of structure underlying a diversity of content in the comparison between living structures. There thus appears to exist a universal commonality between the process of systemic organization of systems (or subsystems), irrespective of the hierarchical positioning of the respective systems.

Open Systems

Von Bertalanffy was the first to distinguish between the static structure of closed homeostatic systems, and the dynamic structure of open living systems (Pines, 1983). Living systems are relatively open because their boundaries are permeable, allowing them to engage in a continuous exchange of matter/energy and information with both their external and internal environments.

Living systems have the inherent capacity to control the permeability of their boundaries, and as such are autonomous. They can close any boundary in order to block out incompatible input when their stability is threatened, or open them in order to import new energy and information. Durkin (1981) states that this self-organizing property of living systems is indeed the

primary characteristic of all living structure, and allow them:

- to be active so that they can influence the environment and be influenced by it,
- to be creative because they can process the energy and information they import to restructure themselves, and
- to evolve towards more complex levels of organization.

Flux Equilibrium

As living systems carry out their boundary regulation and function consistently over time, they develop a steady state by maintaining an optimal but ever changing modulation of the degree of openness of boundaries. Von Bertalanffy (1968) refers to this phenomenon as "Fliessgleichgewicht", a flowing or dynamic equilibrium which ensures the system's stability throughout its succession of transformations. This process generates energy for active self-organization by the active transport of matter/energy into and out of the boundaries of living structure, thereby maintaining a homeostatic/heterostatic balance.

Second Law of Thermodynamics

Durkin (Pines, 1983) makes reference to the fact that General Systems Theory utilizes the Second Law of Thermodynamics which states that "without the application of energy in the form of work, systems are subject to entropy. Their organization gradually deteriorates and they begin to move towards

randomness" (p.86). Given the negentropic self-regulatory nature of living systems, they have the capacity to counteract the forces of entropy by importing energy and information from the environment. Processing of input enables them to transform and to spiral to higher levels of organization or negentropic states.

Conclusion

Schoeman (1983) states that General Systems Theory can be considered a metatheory, since it creates a broad theoretical framework within which the human personality can be described as a complex and interdependent phenomenon. Durkin (1981) also makes reference to the fact that a metatheory is a second-order theory (theory about theory), and that general systems theory is a theory about a second order phenomenon, "living structure".

The following section considers the influence of General Systems Theory on the work of Helen Durkin and the American Group Psychotherapy Association's Task Force for the application of General Systems Theory to group therapy.

General Systems Theory and Group Psychotherapy

Introduction

By the 1970's a growing core of group therapists was beginning to search for a way to incorporate new ideas and techniques into the traditional psychoanalytic model of group

psychotherapy. Certain shortcomings had been experienced with the traditional theoretical models, particularly as it pertained to the group therapy context, and the need gradually developed for the use of a more generalized theoretical framework. In this regard, Durkin (in Pines, 1983, p.7) states that "paradigms are time and space bound", and that "we must continually review our group therapy models if we wish to remain responsive to scientific progress, to socioeconomic changes, and to the changing needs of those who come to seek our help". The field that contained the required theoretical conceptual framework needed was that of systems science, for this "structural approach served to bridge the gap between the physical and natural sciences. It seemed plausible that it could do the same for the behavioural and social sciences, as well as for the 'group therapies'" (Durkin in Pines, 1983, p.81).

Bateson and Ruesch (1951) were the first to apply cybernetics to therapeutic communication. On the basis of their findings a number of psychiatrists including Watzlawick, Jackson, and Haley, developed a communications approach to family therapy. The family was regarded as the target system to be treated as a whole, rather than the designated patient. To Durkin (1981) the family model of cybernetics did not provide the solution to the problems of group therapy for the following reasons:

- While the family therapist is confronted by a system that is already tightly organized, the group therapist must deal with systems which are in the process of formation.
- In the application of cybernetics to the family therapy

context, relatively little attention was paid to the influence of individual members in system formation and change, and still less to the role of their personality subsystems. Group therapy, though, had clearly demonstrated that changing a member's personality structure had significant therapeutic effects.

- Cybernetics is based on a mechanistic model, while general systems theory, in Durkin's (1981) view, employs an organismic model with the ability to account more adequately for most typically human behaviour such as growth and creativity, from personality to group suprasystems.

With the aim of applying General Systems Theory to group therapy, the American Group Psychotherapy Association appointed a General Systems Theory Task Force, under the chairpersonship of Helen Durkin (Durkin, 1981). Durkin (Pines, 1981, p.86) states that "GST does not itself provide a new theory of group therapy nor a set of ready-made techniques, but it makes available a new way of looking at the clinical events and a solid foundation of new information, from which we can construct, if we wish, a more inclusive model of group therapy". The following subsections address General Systems Theory concepts as they pertain to group therapy.

System Level and Isomorphy

The therapeutic group is conceptualized as a hierarchical system at three levels of systems, consisting of the group as a system, the members as systems, and their personality structures as systems. The sharing of certain basic structural features

(isomorphies) and common structural laws of operation between systems of all categories implies that whatever one learns about one system will illuminate another particular system one wishes to study (Durkin, 1981). General Systems Theory thus enables the therapist to draw process parallels between respective system levels, and allows the therapist to view his/her group, the members, and their internal personality structures as three systems at different levels of complexity.

Autonomy and the Process of Boundarying

Given the autonomous nature of living systems and the inherent capacity to control boundary permeability (Von Bertalanffy, 1968), therapeutic intervention is aimed at the facilitation of the boundarying process of the respective levels of systems in the group therapeutic context. Durkin (1981, p.11-12) states the following: "Focusing on the system boundaries gives the therapist a single uniform approach to all levels which permits him, at times, to cut through the diversity of the content to the underlying structure." The therapist assumes the role of the organizing subsystem and temporarily takes responsibility for carrying out the boundarying function for all three of the interacting systems, that is, the group, the members, and their internal personality structures.

Stated simply, the therapist facilitates the opening of boundaries which restrict potential for growth, and the closing of boundaries when stability is endangered, thereby regulating energy/information flow. Boundary opening is facilitated by

means of emotional input from the therapist, whereas closing is facilitated by means of cognitive input. Durkin (1981, p.54) states that one "cannot say what causes opening/closing because it causes itself, even though some external event may well be the occasion for it to do so, or some internal process might be recruited as an instrument for carrying out such a boundarying event". Irrespective of the level at which the intervention is delivered, the influence of resulting transformations will be circular and will affect all of the respective systems.

Flux Equilibrium

The group therapist takes his cue from the way normal living systems stabilize or transform themselves by monitoring the permeability of their boundaries and over time develop their own flux equilibrium or steady state (Von Bertalanffy, 1968). The therapist's primary focus is to facilitate change in the member systems because it is they who have come for help (Durkin, in Pines, 1983). He may choose to catalyze members' capacity to move towards flux equilibrium by bringing about change in their personality subsystems, or he may achieve a similar effect by dealing with boundaries in the group suprasystem. Whatever the level at which he intervenes, the therapist continuously observes the group system as a whole since it is a powerful force field whose continuing influence on its members he wants to maximize. The power of the group suprasystem as a whole depends on the steadiness of the flow of energy/information.

Conclusion

General Systems Theory as a theory about living structure provides a paradigm applicable to the therapeutic group, itself a living structure with self-organizing properties. The most notable influence of this paradigm on group therapy is to be found in the conceptualization of the isomorphic qualities of systems at different hierarchical levels, allowing a transcendence of the artificial delineation between group member and group process which is often found in the traditional models. This indicated a conceptual leap towards emphasizing the self-referential nature of systems at all levels.

In the following section the second-order cybernetic and evolutionary perspectives will be discussed in order to create a conceptual frame within which the group therapy process can be elucidated in the chapters which follow (chapters 4 and 5).

Cybernetics of Cybernetics and the Evolutionary Perspective

Introduction

During the 1970's a group of scientists began to question the Second Law of Thermodynamics, observing that living forms seem to move towards negentropy under specific conditions, towards greater complexity as well as new and different states. A significant member of this fraternity of scientists was Ilya Prigogine, whose theoretical formulations, although not strictly

adhering to the principles of cybernetics, observed that a number of chemical and physical processes seemed to be excluded from the inevitable end (entropic state) dictated by the Second Law of Thermodynamics.

The Evolutionary Perspective

The evolutionary perspective, as exemplified by Prigogine, Nicolis and Babloyantz (1972), although it does not belong to the second-order cybernetic paradigm, provides a theory of change which serves as a metaphor for conceptualizing the way in which change occurs in the context of therapy in general, and group therapy specifically.

In apparent opposition to structure-determinism, Prigogine et al. (1972) advocates process as "determining" structure, thereby effecting a process determinism. Viewed from a second-order cybernetic perspective, this distinction appears arbitrary, though, where the placing of process above structure, or vice versa, is a mere punctuation of the observer. Process and structure are conceptualized as being recursively connected.

Rather than breaking down to a final point of equilibrium, certain structures, as explored by Nicolis and Prigogine (1977), initially appear to defy the Second Law of Thermodynamics by evolving into greater complexity of nonequilibrium. "These dissipative structures draw their energy for growth from outside the system, but attain the conditions sufficient and necessary for discontinuous quantum leaps to new organizations from the fluctuations within the system." (Dell & Goolishian, 1981,

p.179). This process is referred to as evolutionary feedback.

The evolutionary perspective argues that open living systems, under certain conditions far from equilibrium, evolve towards higher orders of complexity, and at no time experience a state of homeostasis or stability for an extended period of time. Dell and Goolishian (1981) state, with reference to Prigogine, that these systems mutate towards new regimes of dynamic interaction whenever they become stifled by the debris of past entropy production, the latter referring to a rough measure of randomness or disorder. These new regimes of negentropy (patterned complexity) eventually become stifled and entropic and set the evolutionary wheel into motion again in an ongoing process of dynamic equilibrium.

Dell and Goolishian (1981) state that at any point in time, the system functions in a particular way with fluctuations around that point. This particular way of functioning has a range of stability (parameters) within which fluctuations are damped and the system remains more or less unchanged. Should certain of the fluctuations become amplified, a particular fluctuation may exceed the existing parameters and lead (energize) the entire system into an entirely new dynamic mode of functioning.

Dell and Goolishian (1981, p.179) state, with reference to the stochastic nature of change, that "as a system becomes sufficiently nonequilibrium and approaches instability, a variety of different paths become available to the system. Which path is 'chosen' is determined randomly by the particular fluctuation that is amplified to the critical value - that is, 'order through fluctuation'".

While Prigogine (1978) emphasized the process by which thermodynamic systems continue to evolve and become more complex, Maturana (Maturana and Varela, 1980) has focussed on how living systems form and maintain themselves. Although both the theories of Maturana and Prigogine may be said to exemplify an evolutionary paradigm according to Dell and Goolishian (1981), Maturana's ideas go beyond transposing one set of ideas for another. The ideas of Maturana and Varela (1980) take one to a higher order of recursion, which can be described as the cybernetics of cybernetics, a phrase originally suggested by Margaret Mead (Keeney, 1983).

Cybernetics of Cybernetics

Cybernetics of cybernetics is neither a theory, a model, nor a map, but rather a process of knowing, constructing and maintaining a unique world of experience.

Lifschitz (1986) states that Maturana has provided an ontology which leads to a cybernetic epistemology highly compatible with that of Bateson. The views of these two thinkers are on the cutting edge of the shift in thinking from a linear causal tradition which takes the observer out of the frame towards an epistemology of pattern, which includes the observer as a part of the emerging system. Cybernetics of cybernetics is a way of pointing to the observer's inclusion and participation in the system. Maturana (1975) emphasizes an observer-dependent epistemology. In line with Bateson (1978), his emphasis is on the language-dependent nature of our constructions of reality.

Cybernetics of cybernetics, or second-order cybernetics as referred to by Von Foerster (Keeney, 1983), thus emphasizes the self-referential nature of human observation and the way in which an observer participates in the construction and maintenance of his ideas of the world. "Systems" are mere constructs which are utilized to order the world we live in, and are, irrespective of our attempts to define them as stable, permanent objects with recurrent interactional patterns, by definition co-dependent and relative to the observer. Varela (1979) states that what an observer thus chooses to observe would reveal his characteristics as observer. According to Maturana (1978), that which an observer observes is the result of the activity of his own nervous system.

Systems must be understood in terms of the feedback of information to create a closed loop (Keeney, 1983). Self-reference or self-recursion implies that a system manifests a closed organization, and thus can be conceptualized as being an autonomous entity.

Autonomy

The concept of autonomy refers to the way in which the system creates, regulates, organizationally closes, and transforms itself. Autonomy is a characteristic of all living systems (Durkin, 1981) and central to the cybernetic view of living process.

Maturana (1975) refers to the recursive organization of cybernetic systems which implies that systems must be described

with reference to their own internal organization. The term "autopoiesis" was formulated by Varela, Maturana and Uribe (1974) to describe the tendency of systems towards self-creating and self-maintaining organization. According to Varela (1976) autonomous systems are organizationally closed: "The whole is more than the sum of its parts, it is the organizational closure of its parts" (p.292). Autopoiesis is the inherent quality of autonomous systems that enables them to function in dynamic fashion within the boundaries of closed organization. Given the conceptualization of closed organization or autonomy of a system, the latter cannot be directly influenced or entered into. Autonomous systems can merely be perturbed in order to effect structural changes. In this regard, Maturana (1980) refers to interaction as being non-instructive.

Non-instructive Interaction

Cybernetic systems are open to energy but closed to information (Varela 1976). Interactions with autonomous systems should thus be called "perturbations" rather than "inputs" (Maturana & Varela, 1980), since there exists no direct interactive influence (input), but merely structural perturbations.

Keeney (1983, p.85) states that these interactions "represent perturbations of the stability of the whole system, which, in response, will compensate or not compensate", depending on the nature of the system's structure. What remains stable in this compensation is the system's wholeness, since the system retains its identity as a particular autonomous

organization. Interaction in this conceptualization is constructive rather than instructive in that the system has the potential for structural reconstruction, the latter being of a stochastic or indeterminate nature and, as such, not linearly instructed or determined by a particular perturbation. Whereas the systemic organization thus remains stable or unchanged, the structure is subject to change, as is discussed subsequently.

Structure and Organization

Maturana and Varela (1987, p.47) define the terms "structure" and "organization" as follows: "Structure denotes the components and relations that actually constitute a particular unity and make its organization real. Organization denotes those relations that must exist among the components of a system for it to be a member of a specific class".

Maturana (1978) argues that any description of living systems must distinguish between structure and organization as complementary aspects of systems. The organization of a system specifies the class of entities to which the system belongs. Structure denotes the nature of the components of which a system consists and determines the potential interaction in which a system can participate. The nature of a system's structure, not the environment, determines the system's autonomous individuality and behaviour, and is referred to as structure-determinism (Maturana, 1978).

Structure-determinism

According to Maturana's (1978) principle of structure-determinism, a system can undergo two types of changes:

- Change in the structure of the system to such a degree that the organization of the system changes. The system's identity changes (evolves) to a system with a different class and name.
- Change of structure without change in organization, where the system as an entity remains unchanged.

All structural changes in living systems are subordinate to the systemic organization and the maintenance of the system as a unity. Autonomous systems maintain their identity as a unit as long as they remain organizationally closed.

The principle of autonomy specifies that, that which is conceptualized as a system can not be isolated from the observer's conceptualization thereof. The observer as an organizationally closed system cannot observe himself or herself and his or her environment from outside of his own experience. That which he observes as his environment is still part of his own experience (Varela, 1979). Knowledge of other systems is restricted to knowledge of one's own system. "We live therefore in a domain of subject-dependent knowledge and subject-dependent reality" (Maturana, 1980, p.60).

Maturana (1978) states that when an observing system constructs another system it is neither the observing system nor the observed system that is the centre of focus, but the

relationship between them. This view leads one to a consideration of the relationship between the autonomous observing system and other autonomous systems in its environment.

Structural Coupling

According to Maturana (1975), when two or more autopoietic systems interact repeatedly, such that the behaviour of one becomes a function of the behaviour of the other, they can be said to be structurally coupled. This coupling describes the relationship between a structurally determined system and its environment, and is a prerequisite for the survival of self-organizing systems. Maturana (1975) states that that which exists must be structurally coupled to the world in which it lives in order not to disintegrate.

Structural coupling is the process underlying cognition or intelligence. To be structurally coupled is to manifest intelligent behaviour. The most basic behaviour is to exist, and the goal of most knowledge is to know how to continue existing. "Living systems are cognitive systems, and living as a process, is a process of cognition" (Maturana, 1969, p.7). Intelligent behaviour is a function of the principle of structural plasticity.

When a system's organization remains intact while the system is undergoing structural changes, the system is referred to as a structurally plastic system. Dell and Goolishian (1985, p.13) state that "although the structure of the system

determines how it will 'react' to a given perturbation at a given instant, that interaction, in turn, leads to a structural change which will alter the future behaviour of the system". A structurally plastic system, thus, is a learning system.

The interactional system that develops whenever two or more structurally plastic systems couple, is the product of the way in which the two systems fit together. This coupling "is a necessary consequence of their interactions, and is greater, the more the interaction takes place" (Maturana, 1975, p.327). Structure-determined systems automatically become organized into interactional systems. Dell and Goolishian (1985, p.13) note that "whenever two or more structurally plastic systems interact, they will begin to co-evolve a closed pattern of interaction. They will form a system".

The coupling of the changing structure of the structure-determined system to the changing structure of the medium in which it exists, is referred to by Maturana (1975) as ontogenetic structural coupling, and results in a concensual domain (Maturana, 1978). Thus, although the observing system's transactions with the environment lead to personal observation, the interaction with other systems demands that personal meaning be translated to shared public meaning, as Varela (1979, p.276) states: "Thus we have by necessity, a world of shared regularities that we cannot alter at whim".

When social concensus is achieved in a domain, the meanings and descriptions of the relative systems start corresponding. This does not mean, however, that the systems have discovered an objective reality (Varela, 1979). According to Maturana (1975),

an observing system can only draw distinctions or observe based on the way in which it is coupled to its medium. What the observing system observes is not objectively "true", but only valid within the domain specified by the structure of the observing system in interaction with its environment.

Structural Coupling and Concensual Domains

Maturana (Simon, 1985) emphasizes the notion that human systems can only be observers by means of language: "We are in language, we live through language and we do language as we live" (p.37). This does not mean, though, that language is a product of observation/interaction, or that the latter is a product of language. Rather, interaction/observation and language are recursively connected within the cybernetic perspective to the extent that the one leads to the other which leads back to the one and so forth. Any attempt to consider the one of a higher level to the other is a mere punctuation by the observer.

The organizational closure of a system implies that the structure of a system, the nature of which is determined by the organization, determines the system's behaviour by specifying with which events in the system's medium it can interact, as well as the way in which the system will react within each of these interactions. Forces from outside the system cannot determine, specify, or instruct its behaviour, but merely provide the historical opportunity within which the system can continue its structure-determined behaviour (Dell, 1985).

Maturana (1980, p.32) states in this regard that a linguistic and consensual domain that evolves from structural coupling is non-informative:

> When it is recognized that language is connotative and not denotative, and that its function is to orient the orientee within his cognitive domain, without regard for the cognitive domain of the orienter, it becomes apparent that there is no transmission of information through language.

Structure-determined systems can receive no information from outside of the system. They are open for energy, but organizationally closed for information. Maturana and Varela (1980) propose that interactions with autonomous systems should thus be called perturbations rather than inputs.

Maturana (1978) comes to the conclusion that information has no meaning or existence in isolation; the system qualifies an interaction and determines the nature and meaning of the interaction. Information does not exist independently of the context of a system that generates a cognitive domain and describes certain elements as information.

Conclusion

In the above chapter, first- and second-order cybernetics were discussed in order to place the development of this theory in historical perspective, and to create the context for the discussion of a second-order cybernetic view on group therapy. The discussion of the evolutionary perspective was given in order to prepare the ground for the utilization thereof in the

description of group therapy processes (chapter four). The following chapter (chapter three) will address the theoretical and pragmatic implications of a second-order cybernetic framework for group therapy.

CHAPTER 3

APPLYING SECOND-ORDER CYBERNETIC THINKING TO GROUP THERAPY

Introduction

The position adopted in the argument which will be pursued in this chapter is that the most fundamental difference between a family and individuals in group therapy, resides in the structural and organizational differences between them, as conceptualized by the observer.

The family is punctuated as a close-knit entity which has evolved a well-defined culture, rules, norms, and values over time. A family system can be said to embody a shared consensual domain in language, and functions within a particular socio-economic and cultural stratum. Family members become structurally coupled to one another to perpetuate a particular systemic structure and organization. Through ideosyncratic developmental processes the family, as an organizationally closed system, becomes richly coupled to its members and its environment. This is the case regardless of whether symptomatic behaviour occurs in a family or not.

Palazzoli, Boscolo, Cecchin, and Prata (1978, p.3) state that the cybernetic view of the family is that it is "a self-regulating system which controls itself according to the rules formed over a period of time through a process of trial

and error". Every natural group-with-history, of which the family is a fundamental example, comes to exist over a period of time through a series of transactions and corrective feedbacks. These determine what is permitted and what is not permitted in the relationship. The natural group becomes a systemic unit held together by rules peculiar to it alone.

These rules are related to the transactions which occur in the natural group, transactions which are expressed in communication, on the verbal and non-verbal level. According to the axioms of communication (Watzlawick, Beavin & Jackson, 1967) every unit of behaviour is a communication which, in its turn, automatically elicits feedback consisting of another communication. Thus, that which exists between living human organisms or systems in interaction, exists in and through a process of being-in-language. The act of languaging entails the attachment of meaning to semantic structures, to the extent that, that which exists in interaction, exists in meaning (Anderson and Goolishian, 1988).

In contrast to the family, the therapy group initially consists of individual members with no shared past, but with a shared present and expectations of a shared future in the group therapy context for the duration of therapy. The group develops by members (including the therapist) participating in a process of coevolution towards establishing a unique consensual linguistic domain through a series of recursive transactions and corrective feedbacks. In time the group becomes a systemic unit held together by evolving rules peculiar to it alone and with relevance only to that particular context. Thus, as the group as

a systemic unit evolves, it becomes progressively more comparable to the family system.

Over time, a coupling develops between the individual and his or her particular family system, to the extent that one could postulate that the individual aspires to the same process of structural coupling in contexts other than the family. This does not imply, though, that the nature of coupling for an individual is invariant across contexts, but simply that an ideosyncratic pattern of coupling appears to manifest, to the extent that coupling in the therapeutic context could be conceptualized as resembling coupling outside thereof. This view thus proposes a recursive link between the nature of coupling within the family on the one hand, and the therapy group on the other.

An Explanatory Metaphor

Whereas the family, as mentioned, represents a system with a collective history and systemic unity, the group at the outset is a mere collection of individuals within an ecology of concerned or alarmed verbalizations, in other words, a problem-determined system, which is formed by virtue of its collective descriptions of problems in language. A question that readily comes to mind in the consideration of group therapy processes is the following: "What are the processes through which the group evolves from a collection of organisms at outset, to an eventual systemic unit?"

Consider the chemical process of fusion for a moment. When certain elements are combined under certain scientific conditions by inserting, amongst others, the exact amount of energy, a process of fusion occurs whereby these elements undergo structural changes and blend in order to establish a new organization with restructured components. Relevant to this process of fusion is the evolution of a new organization which transcends the summative qualities of the elements from which it was formed.

The process of co-evolution in the domain of human functioning appears to be analogous to the process of fusion. In this metaphor, energy is equated with meaning in the interactional context, as embodied in language. Language, then, is the vehicle by means of which meaning is negotiated and communicated. The introduction of meaning into the group context, through language, facilitates a fusion (restructuring) of group elements towards the establishment of a particular group identity or organization.

Each group member constitutes an autonomous "element", each with primary membership to the family system, and secondary membership to the broader relational ecology. Each individual thus holds at least one, but mostly, many systemic "membership cards", in a metaphorical sense. The family "membership card" can be regarded as being of primary importance, since it is the member's first and most extensive affiliation. As such, it recursively influences subsequent affiliations to other systems, of which the therapeutic group is but one example.

The system-of-origin "membership card", analogous to a codified security card allowing entrance to premises, contains in it the codes (presuppositions) by means of which the "individual-in-system" attaches meaning to reality, and by means of which his/her perception of reality recursively influences his/her means of codification, yet remaining within the parameters laid down by his/her organizational limits.

The therapeutic process constitutes laying the metaphoric coded "membership cards" on the table, and a co-evolution between members as both facilitated by and partaken in by the therapist towards a consensual domain of meaning.

Whereas it was attempted in the above discussion to create a broad conceptual context for understanding group therapy processes in the presented paradigm, the following section takes a more detailed view of group processes and the conceptualization of change from the second order cybernetic perspective.

The Application of Certain Second-order Principles to the Group Therapy Context

The present discussion takes an observer-dependent view of group therapy processes, and describes group processes from a perspective of second-order cybernetics.

Given the closed nature of group organization (autonomy), the group therapist cannot directly influence the group by means of interventions, and, recursively, cannot be directly influenced by the group. Maturana and Varela's (1981)

conceptualization of non-instructive interaction indicates that no outside influences can change or influence an organizationally closed (autonomous) system in any predictable linear-causal manner, and that interactions with such systems should thus be called "perturbations" rather than "inputs".

Structure-determinism implies that each system will react in an ideosyncratic manner when perturbed by environmental stimuli, i.e. the therapist or other group members in the present context. When the therapist perturbs the system, the response to the perturbation is determined by "the internal co-ordinations and organizational relationships between the structural components of the system (Goolishian & Winderman, 1988, p.132). A perturbation can be conceptualized as the introduction of new meaning or complexity into the therapeutic context.

Autonomous systems are self-creating, self-generating, and self-maintaining. They are able to grow and change and become distinct from the environment by their own dynamics. Simon's (1985) reference to autopoiesis as the ability of systems to change their structures under conditions of change in the environment, usually achieving a higher level of complexity in the process and thereby potentiating their chances of survival, provides a conceptualization of change central to therapy in general and group therapy in particular. The group therapist introduces conditions of change, that is, facilitating a climate which potentiates structural metamorphosis, by means of therapeutic perturbations.

Therapeutic perturbations invite the structure-determined group member to change his/her structure in the face of a changing therapeutic environment. This process is recursive, conceptualized such that a perturbation from the group environment perturbs the organism towards structural change, the subsequent structural change acting as a perturbation for change in the group environment, etcetera.

The more complexity the group therapist introduces, the greater the potential for group members to gather from the rich metaphoric harvest of new or alternative meanings in the group's concensual domain and select that which "fits" best with each member's structure. Members do not simply take or accept the perturbations from the therapeutic context - they subtly translate them, so as to make them more compatible with their own organizational requirements in order to establish structural change. The therapist as participant-observer thus can never have certainty as to the way in which perturbations will be acted upon by group members, nor to the nature of subsequent structural change. At best, he/she can intervene (perturb), and note the subsequent changes which, in turn, will direct his or her intervention in recursive fashion.

In summary, the aim of group therapy is conceptualized as the facilitation of structural changes within the group-as-a-whole and individual members through the continuous introduction of perturbations, in order for the group to achieve a higher level of complexity in the process and thereby potentiating their chances of "survival" both inside and outside the group. Group members also introduce changes into the

therapeutic context which perturbs the therapist as an autopoietic organism who may also exhibit structural changes in the co-evolutionary therapeutic process.

The Process of Structural Coupling

In order not to disintegrate, that which exists must be structurally coupled to the world in which it lives. Maturana (1978) states that autonomous organisms are structurally plastic, that is, possessing the ability to undergo structural changes as a result of interacting with itself, its environment, and other structurally plastic systems.

Structure-determined systems (group members) automatically become organized into interactional systems (the therapeutic group). This interactional system (group) that develops whenever two or more structurally plastic systems become structurally coupled, is the product of the way in which the respective systems (members) fit together or cohere. This structural coupling "is a natural consequence of their interactions, and is greater the more the interaction takes place" (Maturana, 1975, p.327). As time progresses, it would follow that the group will evolve towards greater coherence.

Group members, as structurally plastic systems, have the ability to retain their organizations while undergoing structural changes. Dell and Goolishian (1985, p.13) state that "although the structure of the system determines how it will 'react' to a given perturbation at a given instant, that interaction, in turn, leads to structural change which will

alter the future behaviour of the system". The group therapist thus cannot predict the reaction of a group member, or members, to a given perturbation. The therapist merely perturbs the group and monitors subsequent member and group feedback, which in turn directs his/her subsequent intervention and so forth, in an ongoing fashion.

Maturana (1978) refers to the coupling of the changing structure of the structurally plastic system to the changing structure of the medium in which it exists, as ontogenetic structural coupling, and states that this results in a consensual domain (Maturana, 1978). If the group member, as a an organizationally closed system, exhibits structural plasticity, the group as an autonomous system of necessity exhibits the same plasticity. Thus, it can be said that the structurally determined group member determines group structure, which, in turn, recursively influences individual structure. In this regard, the group establishes an ever-evolving consensual linguistic domain.

When group consensus is achieved in a domain, the meanings and descriptions of the relative members start corresponding. This does not mean that an objective reality has been discovered (Varela, 1979). An observing system can only draw distinctions based on the way it is coupled to its medium, according to Maturana (1975), and, as such, the group consensual domain has shared meaning relative only to the particular group context.

The aim of group therapy presented in the previous section can now be elaborated upon as follows: The facilitation of a structural change within the group-as-a-whole and individual

members recursively, through the continuous introduction of perturbations, in order for the group to achieve a higher level of complexity within a consensual linguistic domain, thereby potentiating their chances of survival both inside and outside of the group.

One would expect the nature of structural coupling of the group member within the group to be isomorphic to the manifestation thereof in his or her wider relational ecology, and most notably the system-of-origin or family. An isomorphic correspondence can be assumed to exist between the nature of a structural coupling which a member exhibits during the group interaction and the nature of his/her structural coupling with his/her family system. This is viewed as a correspondence and not an exact duplication, due to the fact that the medium in which the coupling takes place is different in each case.

The therapist can make tentative hypotheses regarding the group member's interaction outside of the immediate group context by observing and describing the group interactions. Conceptualized as such, changes which occur in group therapy can perturb family structure. Assuming that a structural coupling does exist between person A and person B in a system such as the family, it follows that a structural change in one of the members could have a reciprocal influence on any one or a number of the family members so as to recalibrate the systemic structure of the family at a higher level of complexity.

In the above section a second-order cybernetic conceptualization of certain group therapy processes was provided. The following section takes a closer look at certain pragmatic considerations.

Systemic Group Psychotherapy: Pragmatic Considerations

Of necessity the model adhered to by the group therapist shapes his/her descriptions of the group processes and the selection of certain therapeutic strategies and techniques, and vice versa, in recursive fashion. The following section considers the application of certain therapeutic techniques to the group therapy context, utilized and described from the perspective of second-order cybernetics.

Introduction

In the aforegoing sections, a second-order cybernetic conceptual frame was used to describe group therapy processes. However, this constitutes but one half of the proverbial therapeutic coin. Of necessity, the other half is constituted of pragmatic considerations, the actual operationalization of the principles of the conceptual frame in the therapeutic context.

Second-order cybernetics, being a metatheory (theory about theory) does not subscribe to particular therapeutic methodologies or techniques. The therapist who adheres to this perspective can utilize whatever therapeutic techniques he/she considers appropriate regarding the therapeutic process, as long as he/she remains aware that the particular technique is not something that can be reified, but a mere distinction he/she is drawing as therapist. He/she should always, in the description thereof, include himself/herself as the creator of the description. Keeney (1983, p.83), in reference to Bateson,

states that the therapist can identify three basic ways in which he draws distinctions:

> These three ways of drawing distinctions again point to recursion: The therapist is drawing distinctions, distinctions upon distinctions, and distinctions upon distinctions upon distinctions. What the therapist does when he engages in drawing these distinctions is construct an epistemology - a way of knowing and a way of knowing about his knowing. In this process the therapist's knowledge can be constantly recycled and modified in order that he may know how to act.

Each therapeutic approach, be it individual-, family-, or group therapy, has certain theoretical foundations, a descriptive language, and an arsenal of pragmatic guidelines and techniques. These techniques and principles are not necessarily mutually exclusive, and find their way across conceptual boundaries, though they are rooted firmly within particular paradigms. The theoretical foundation recursively influences the descriptive language which the therapist uses to conceptualize what occurs in therapy, which in turn has a recursive relationship with the therapeutic techniques and principles. A particular epistemology, and more specifically, a certain paradigm within the latter, then, prescribes particular descriptive metaphors and the utilization of certain principles and techniques.

This principle, of necessity, also applies to the systemic epistemology. The strategic therapists focus on problem formation and -resolution by considering the way in which

attempted solutions for solving problems eventually become problems. This could be considered a central principle in their therapeutic approach, and prescribes their therapeutic techniques and interventions. The ecosystemic therapist acts as an "ecological detective" in order to discern the patterns (coalitions and alliances) within and between systems, and tailors his/her therapeutic strategies in order to attain his/her aims most effectively.

The Milan style of family therapy developed the technique of circular questioning as a means of discerning systemic patterns, and as a therapeutic intervention in itself. Other techniques and principles utilized within an ecosystemic epistemological orientation involve the use of metaphors, storytelling, positive and logical connotation, and sculpting, etcetera.

Ultimately, the ecosystemic therapist aims at changing the meaning that clients ascribe to their experiences by introducing new and alternative meanings.

Discerning Principles and Techniques

Given the second-order cybernetic perspective and the isomorphy that can be perceived between systems, in this particular case the group and the family systems, all systemic principles and techniques which are applicable to the family system are applicable to the group system, on a theoretical, descriptive level. On a practical level the matter is not as simple.

The family, as a natural-group-with-a-history, manifests established, set patterns and themes, while the group, at the outset, has no definite patterns or themes, as discussed earlier on. At most, the group might have a central theme regarding the similarity of their communicated complaints on a content level, but there exists no systemic themes or patterns, no consensual domain in language. The family therapist utilizes the systemic organization of the family and broader ecology in his/her management of the family.

The group therapist focusses both on interactional patterns within the group and outside thereof, most notably in the family system, by establishing an arc between the group members and the respective family systems. In order to achieve this, the therapist needs to utilize certain systemic principles and techniques.

Patterns Which Connect

A connecting pattern, not necessarily in a true Batesonian sense, is construed as "connecting" the family as a system with the group as system, to the extent that one can postulate that the behaviour of a person in the group therapy context manifests a pattern analogous to his/her behaviour in the family system. This supposition creates the foundation for the present approach to group therapy.

The therapist faces the task of co-evolving the connection of patterns between group interaction and family interaction for the respective group members. By coevolving connecting patterns,

the group therapist includes the family system as a necessary and integral part of the group therapy context, as a means of introducing information (new or alternative frames of meaning) into the group context. The technique of circular questioning provides the group therapist with a means for attaining this goal.

Circular Questioning

Penn (1982, p.267) states that the aim of circular questioning is "to fix the point in the history of the system when important coalitions underwent a shift and the consequent adaption to that shift became problematic to the family." The information sought by circular questioning are the differences in relationships the family has experienced before and after the problem began.

For the purpose of describing the patterns which can be discerned in group therapy, the Milan model has been selected, due to the interventive value of the questioning process, the way in which the technique can be utilized in co-evolving group and family connections, and discerning inter- and intrasystem interactional patterns. The proposed cluster of ideas is not a stepwise plan for conducting a session, but one amongst a number of therapeutic options available to the group therapist.

Theoretical Foundation

The technique of circular questioning is presented as

exemplifying the notions of, amongst others, co-evolutionary change and circularity.

Co-evolutionary change. The understanding of feedback as a recursive process that can generate different orders of circularity arises from second-order cybernetics. An implication of this view is that any change that "is only a fluctuation in a system at one time can suddenly become the basis for an entirely new arrangement of the system at another time" (Hoffman, 1981, p.341), due to feedback. Hoffman (1981) also states that the inclusion of co-evolutionary change concepts in the thinking of the family therapist encourages him or her to recognize the self-reorganizing properties of systems, where a system will choose new forms congruent with its own organization.

The therapist initiates the shift away from the client's present form of stability (change), but it is the client that figures out its next pattern of organization (stability).

Circularity. The concept of circularity appears to be analogous to Maturana's (1978) concept of self-reference. Bateson (1972, p.8) states that what is meant by circularity is the "capacity of the therapist to conduct his investigation on the basis of feedback from the family in response to the information he solicits about relationships and, therefore, about difference and change".

Penn (1982, p.271) states that if the cybernetic circuit "is a 'unit of mind' with a sequence of events having feedback structure and triggered by information, then circularity means

that wherever the loop is drawn in autonomous living systems, there is the potential for everything inside the loop to change or restructure itself when information is introduced." This definition of circularity describes an epistemological premise of observer-inclusiveness, as it includes the therapist within the loop triggering the information that permits everything inside the loop to change or restructure itself.

Should the loop in the group therapy context be conceptualized as including therapist, group members, and the larger ecology (families of origin), then there appears to be the potential for structural change with the introduction of information.

Categories of Circular Questioning

A brief description of the nine categories of circular questioning (Penn, 1982) is subsequently provided, with examples relating to the group therapy context.

Category 1: Verbal and analogic information. The information gathered in a therapeutic session is a combination of verbal and analogic (non-verbal) information. The therapist observes the analogic behaviour and compares and contrasts that information with the verbal information. The group therapist should note the cue words used by group members, for example: "I have problems communicating with the opposite sex". In this example, the cue word is "communicating". Penn (1982, p.272) states the following: "For the therapist to have a problem

definition about relationships, these 'cue' words must be transposed into statements about relationships and differences in relationships." In the group context, the therapist might react in the following way: "With whom of the female members in the group do you have the greatest difficulty communicating?", or, alternatively, should the therapist wish to identify relationships outside of the immediate group, he might ask: "Who is most concerned about your communication difficulty?"

The therapist constantly observes the redundancies and analogic behaviour of group members, and compares this with their verbal information.

Category 2: Problem definition. Circular questions are designed to obtain a clear problem description at the present time. This is done in order to later connect the problem in the present to a time in the past around the onset of the problem. The group therapists asks members respectively: "What is the problem now, or at the present moment?". This question establishes the one end of the arc.

Category 3: Coalition alignments in the present. This category of questioning has as its aim discerning the coalition alignments amongst the members of a system around the defined problem. For example, the therapist might ask a group member: "Who in your family reacts first when you become verbally aggressive?", or, alternatively, "Who in the group do you think will react most strongly should you become verbally aggressive here?", or "Peter, who in the group do you think will be most

likely to comfort Sally if she becomes depressed again?" By placing the emphasis on both the group and the family process, the therapist has the opportunity to investigate coalition alignments both in the group and in the respective family systems, and to draw parallels between these ecologies.

Category 4: A different sequence. The therapist enquires about what different members of the family do when the problem occurs. By utilizing this category, the therapist attempts to understand the family's behaviour and the differences in that behaviour over time.

This category of question can be utilized within the group by asking one member how he or she thinks another member or members will react when a certain member exhibits a particular problem behaviour. The therapist can also extend this by comparing the present behaviour to a similar situation a number of sessions before, for example: "Peter, how is Sally's reaction to Joe's sexist remarks different now compared to the last time it happened?" By asking this, the therapist can ascertain the change in group behaviour, in a way that indicates this to the group. The member has the opportunity to experience behaviour and behavioural change in the here-and-now.

Category 5: Questions of classification and comparison. These questions are constructed to follow the changes in the family's coalition alignments, for example: "Who was most upset with your divorce, who next, who next?" The group therapist might inquire: "Joe, who do you think was most upset when Paul

did not show up for our session last week, who next, who next?" or "James, who do you think is going to find it the most difficult to start today's session, who next, who next?" Alternatively the therapist can also incorporate the respective family systems into the group ecology by asking the following kind of question: "Peter, who in the group reacts the most like your father, who next, who next?"

Category 6: Agreement questions. These questions provide the therapist with an opportunity to rank coalitions in terms of their strength and priority. The therapist asks members who would agree with them regarding a certain statement or state of affairs, for example, regarding the example above: "James, who do you think agrees with you that Susan will have the greatest difficulty initiating the session?" The therapist can also relate the question to a certain member's family system: "Paul, who in your family will agree with you that these group session are beneficial to you?"

Category 7: Gossiping in the presence of other members of the system. This category regards requesting one member of the system to comment on the relationship of another two members in the presence of the latter. The focus of the gossiping is rotated to include everyone, for example: "Peter, what do think about the fact that Joe and Frank always team up against Sally", or "Paul, why do think Joe and Frank always sit together?"

Category 8: Subsystem comparison. Subsystem comparison both between and within subsystems are intended to draw ever finer distinctions about relationships. In the group context, the therapist might ask: "Sally, in what way was the group different when Paul wasn't present?", or "Peter, how is Joe's reaction to Sally different now that Frank has left the group?" A special category of subsystem comparisons are questions that begin with "if". "If A gets closer to B, how would C react?". These questions are used as preparation for interventions. For example: "If Joe was to be seated next to Sally instead of Frank, would that change their relationship, and in what way?" or "If Sally had to start ignoring Frank's sexist remarks, would he persist in making them?"

Category 9: Explanation questions. A member in therapy is requested to give an explanation for information solicited by questions in other categories, for example his/her own reaction to an agreement question. For example, the therapist might ask the following question: "James, could you explain why you think Sally would agree with you that Susan would have the greatest difficulty in initiating this session?"

Utilizing Circular Questioning in Group Therapy.

As mentioned before, circular questioning can be utilized in the group therapy context as a vehicle for connecting the patterns that exist between the group therapy system and the respective family systems, and between group members.

Since the therapist's aim and first priority for purposes of intervention is the group interaction, he will take care not to focus on a particular member exclusively for any extended period of time. The questions are utilized to indicate to members the interpersonal nature of problems, to include the family system in the therapeutic context, and to indicate to members how their ideosyncratic ways of structural coupling are a function of their own organization, that of their families, and of the organization of the broader ecological contexts of which the group is but one example.

Change in ecosystemic therapy is conceptualized in the second-order cybernetic perspective as structural change within organizational stability. New information as introduced by circular questioning serves as a potential perturbation. A coupling with this information (meaning) could lead the member towards structural changes, i.e. changes in how a member ascribes meaning to reality. The member is furnished with alternative lenses by means of which "reality" can be negotiated. This "new" co-evolved structure could serve as new information in the family system and larger ecology, and perturb the latter towards structural changes. The system's reaction to the perturbation, though, is of a stochastic nature, and can never be predetermined. To enhance this process, though, an additional category of question is introduced.

Category 10: "System comparison". An additional category (category 10) of circular questions is proposed for utilization in the group context. This category makes reference to questions

regarding the establishment of a direct arc (connecting the conceptual pattern) between group members and their respective family systems and/or wider ecologies, thereby drawing distinctions between group and family relations. It is proposed that this category be referred to as "system comparison".

In order to utilize "system comparison" circular questions, the group therapist facilitates and observes an interaction between two group members, for example members A and B. The therapist then punctuates the behaviour or reaction of one member, say member A, as having been influenced by the behaviour of member B, and asks the member how his/her reaction is similar to or different from his/her reaction to the behaviour of a significant other in his family system. It is proposed that the answer to this question could provide ever finer distinctions between group and family relations and also frame group interactions as related to extra-group relations.

The present category could also be utilized in order to anticipate family reactions to newly acquired behaviours of a group member. For instance, when a member reacts in a certain way to another member, the therapist could ask the member in question what the reaction of a significant family member would be if he reacted in the same way towards the latter. This question would yield information about family relationships and could be used as preparation for interventions and to entrench new behaviour by anticipating consequences, responses and new patterns.

Concluding Remarks

The above discussion attempted to indicate to the reader the therapeutic potential of applying a family-oriented therapeutic technique, i.e. circular questioning, within the group context, both as a means of discerning group and respective family relationships, and as a means of intervention in itself. The discussion also aimed at indicating the way in which the therapist's theoretical orientation shapes his therapeutic actions and his subsequent descriptions of process, in recursive fashion.

In the following chapter, a transcript of an extract of a group therapy session is analyzed from both a second-order cybernetic and an evolutionary perspective. This is done in order to determine the usefulness of these perspectives as descriptive metaphors for group therapy, and also to indicate the way in which two distinct theoretical perspective can be used in complementary fashion in order to obtain a more complete view of group therapy processes.

CHAPTER 4

TRANSCRIPT AND PROCESS DISCUSSION OF A GROUP SESSION

Introduction

The following is a transcript of an extract of a first group therapy session held with four mothers of autistic children at a school for autistic children. This and subsequent sessions formed part of the Unisa group therapy training course, and was conducted by two trainee co-therapists who were assisted by an observing team of two supervisors and five fellow-trainees behind a one-way mirror. The sessions were video-taped, allowing verbal transcription of the text. The names of the four members have been changed, and they will be referred to as Andrea, Bea, Carol, and Dianne. The therapists will merely be referred to as therapists 1 and 2 respectively.

The transcript will be clarified and supplemented by means of process comments at certain intervals between responses. The process comments are given from both a second-order cybernetic and an evolutionary perspective in order to illustrate some of the propositions which were developed in the previous chapters, and are treated as complementary sides of a systemic coin. In apparent opposition to the structure-determinism of Maturana, Prigogine et al. (1972) advocate process as "determining" structure, thereby effecting a "process-determinism". Viewed from a second-order cybernetic perspective, this distinction

appears arbitrary, though, where the placing of process above structure, or vice versa, is a mere punctuation of the observer. Process and structure are conceptualized as being recursively connected.

Setting the Scene

All the members of the present group had been members of a previous therapeutic group that took place in the same setting and ran at fortnightly intervals for approximately one year. The first group had been facilitated by the school psychologist, and had taken the form of a support group, where the mothers could share their experiences regarding their autistic children and other general matters relating to their families. It appeared as if the focus had been exclusively on the autistic children, and the way in which the family systems had become organized around these children.

On a theoretical level, it can be argued that at the end of that therapeutic process, the group had organized itself around particular constructs regarding the "autistic ecology", thereby arriving at a point of near-equilibrium around certain fixed beliefs (meanings/constructs) and a tendency towards entropy, or alternatively a relative lack of negentropy. The relatively closed boundaries which manifested in the group organization appeared to be a function not only of that particular group, but also of the previous group therapy process and the respective family ecologies.

Regarding the autistic symptomatology, an isomorphy is

proposed to exist transcontextually, and, as such, preserving the relatively entropic autistic organization by not allowing the flow of energy either into or out of the respective family systems. Whereas dissipative structures draw their energy for growth both from outside and inside the system, it follows that relatively closed boundaries that inhibit the flow of energy across systemic boundaries would thus inhibit the growth of the system. Given the inflexibility of interactional parameters within the system, fluctuations cannot be amplified beyond these parameters, and thus are damped down. Ultimately the "autistic ecology" remains relatively entropic by not allowing energy to enter the system, and not generating the necessary energy from within the system itself.

The rationale for the particular cluster of interventions or perturbations utilized by the two therapists was the introduction of new or alternative meanings into the therapeutic context by means of a redefintion of interactional parameters, and the amplification of intragroup fluctuations beyond the existing range of stability, in order to lead the entire system into a new dynamic regime of functioning. The therapists and the observing team attempted to facilitate a process by means of which energy (alternative meanings/information) could both enter the group system and recursively generate intra-group energy.

In the group in question, the therapists introduced the notion of "time out" to the group members. By "time out", reference is made to a shift away from a preoccupation with autism and the autistic child, towards the group member (mother) as an individual person, with a self-definition which is

separate from the child, with the right to take "time out" for herself on both a physical and emotional level. Since the "autistic ecology" appeared to be organized exclusively around the autistic child, the "time out" metaphor was anticipated to be a strong perturbation in this context.

Transcript and Process Discussion of Extracts from the First Group Therapy Session

The extract was taken from the first session of the group, and covers the central part of the session, that is, the redefinition of parameters of the group interaction.

The session started out with the introduction of the members and therapists (including reference to the observing team), and then moved towards a review of the group therapy that had been held the previous year. The conversation revolved around autism and the "autistic lifestyle". It immediately became apparent that the ecology of ideas of both the group and respective family systems appeared rigidly organized around the symptoms of autism. All the responses of the members, every reference to their own as well as their families' needs and experiences appeared to have been translated into an autistic "dialect", so to speak. Autism appeared to have permeated each and every corner of their ecological domain.

The extract starts with the introduction of an alternative focus for the group:

Therapist 1 : I have been wondering whether you (referring to the group) think that this group can also be something other than a support group for your autistic circumstances, if I can call it such?

Comment: Therapist 1 delivers the initial redefinition of the parameters of the interactions of the group members, by inviting group members to negotiate an alternative group reality relative to the previous group experience. Given the sensitivity of the issue of autism for these mothers and, in order to remain faithful to a second-order cybernetic stance, the therapists phrase this perturbation as a respectful invitation.

(A brief silence follows.)

Andrea : Well..., in what way?

Comment: Andrea reacts and invites the therapists to explain, thereby opening the way for an elaboration on the initial redefinition.

Therapist 2 : What else can one do in such a group as this, other than focus on the autistic child?

Andrea : You can break away from the autistic..., you can take walks together, you can go out together or go to a movie. You can go and visit or spend some time with people the likes of those here in

the group. This here is not only a support group, you can also enjoy things together.

Comment: Andrea's reaction seems to indicate that she has a need to spend time away from the autistic environment. Her response appears to exhibit elements of negentropy, such as allowing herself time way from her child, and doing things that normally do not occur in the "autistic lifestyle". This response differs from previous group responses, where the focus was solely on the symptoms of autism.

Therapist 2 : But specifically here in the group, as we sit here now and talk. The theme used to be that you focussed on the children and how you coped with them and where you fit in and so on. What else can one do with a group like this, what else can you talk about?

Comment: Therapist 1 elaborates, expanding on the previous redefinition. Each elaboration opens up possible alternative modes of interaction which can lead to an alternative group reality, though still remaining respectful of the group ecology. By introducing an alternative focus for the group, the therapist attempts to perturb the group towards negentropy (amplifying fluctuations), and away from the existing state of near-equilibrium, on a level of meaning. The therapists' (as participant-observers) impression that the members appear not to understand what is expected of them, may indicate that the group

as a structure-determined system cannot yet structurally couple with the way in which the therapists attempt to co-evolve an alternative reality.

Bea : Oh... one can maybe visit organizations and go and talk to the people. But then the old problem comes in again that most people there do not understand what autism is...

Comment: Bea's response appears to substantiate the above mentioned hypothesis, and indicates an entropic move towards the preservation of the group's position as being near equilibrium. The latter part of her response gives an indication of the rigidity of boundaries between her family and the larger social ecology. By stating that nobody would understand autism, she appears to indicate that the group can only survive by preserving their already rigidly defined consensual domain of meaning regarding their ecology. The latter also appears to hold true for their family ecologies. The isomorphism between the group members, the families and wider social ecologies proposed earlier on, regarding the impermeability of boundaries which inhibits energy flow from outside the respective systems, appears to be a way of attempting to preserve the system and the status quo. Paradoxically, the very attempts at preservation, that is, the restriction of fluctuations between rigidly defined parameters to preserve a position of near-equilibrium, ultimately stifles the system's possibilities for growth and maintains a position of relative entropy.

Andrea : But you can talk to new parents that arrive at the school. As in my case, what I went through..., my child is the eldest, you can tell the people all the implications of an autistic child, like what can happen, and what you must be careful of, and what lies ahead. (She looks at the other group members and they all chuckle for a moment, as if sharing a set of similar experiences). Maybe if the parents of the children can be divided into groups, for example, a group for parents of three to ten year-olds, and then a group with parents of children in puberty, because every stage has its own unique problems.

Comment: Andrea elaborates on Bea's statement and further entrenches the existing entropic organization. It seems interesting that when Andrea initially made a statement that appeared to contain the potential for a negentropic move, Bea reacted in an entropic fashion in her reference to autism and the outside world, which seemed to draw Andrea back to entropy in her reference to her autistic child and the counselling of parents. As the session progresses, it becomes more and more apparent that the rigidity of fixed meanings regarding the autistic context at present renders the members unable to couple with an invitation to explore alternative meanings.

Therapist 1 : Yes, it appears to be better if you can devide

them into different groups...

Comment: Therapist 1 changes tack, and rather than supporting the redefinition of parameters, agrees with Andrea. Therapist 1 acknowledges the difficulty members have in structurally coupling with new meaning systems, and for the present moment decides to support the entropic tendencies of the group. By doing this she indicates to members that they are being heard and that their opinions are respected. This support of the group definition can also be conceptualized as a participation in the relatively entropic group process, thereby potentially promoting the latter. The relatively entropic processes thus appear to have influenced both the group and the therapist in recursive fashion.

Andrea : Yes..., and... (A few moments of silence).

Comment: Andrea hesitates and appears to be caught slightly off guard by the change of direction implied in the therapist's response. This impression is supported by comparing this response to her usual lengthy responses.

Therapist 2 : Yes, we are now talking about things outside the group. But specifically as we sit here now..?

Comment: Therapist 2 again pushes for negentropy by reintroducing the invitation to explore new dimensions of the members' individual lives.

Dianne : Some more things that we can talk about ?

Comment: Dianne's response creates the impression that she has not registered any of the therapists' attempts to introduce new content up to this point in time. Her own organization as a structure-determined system does not yet allow her to link with alternative frames of meaning outside of her own realm.

Therapist 2 : What else can we still talk about ?

Dianne : Man, we have covered so many things... (laughing rather reservedly).

Bea : That we can't think of anything anymore.

Carol : Yes...

Andrea : Or you only talk about the husband or the other children, what does it mean when friends of your normal children come, how do you explain it then..? I actually think the mother is one of the most important people. Your conduct is very important. Now your friends come, and you must first put your child in the room and say: "Quiet" What I have realized from personal experience... It is actually a strange situation when you have to explain to your children: "See, there is your brother, he is actually autistic,

he cannot understand and talk." You must learn to explain, it is not something you can hide. If you explain to your kids, they can explain to others.

Comment: The above four responses appear to indicate a collusion by the members to strengthen their relatively entropic tendency, as each member's comment dovetails so neatly with the aforegoing comment. It appears as if the entropic tendency of the system is enhanced in direct relation to the tenacity of the negentropic thrust of the therapists. Stated simply, the more the therapists attempt to perturb the group and amplify intra-group fluctuations, the more the members restrict the fluctuations in order for the latter to remain within the group's existing parameters and at a point near equilibrium. At this stage of the seesion, Andrea appears as the most central entropic agent within the group.

Carol : It is sometimes difficult to explain to another child what is wrong with your child, particularly when they are still a bit small and cannot really understand what the problem is.

(A brief silence.)

Comment: The members seem to share a concensual linguistic domain regarding autism, but apparently regarding little else. The meanings and realities they have co-evolved over time within

the group's ecology of ideas have created an organizational pattern that connects all members, retaining fluctuations within rigid parameters.

Therapist 2 : O.K., in the group sessions that you have had up to now, everything had revolved around the children, which is understandable, because they form a central part of your lives, whether your child is autistic or not, and they are part of you. But I really do believe that there is a life that you live for yourselves, apart from your children...

Comment: Therapist 1 delivers the invitation to extend their parameters in a progressively less subtle way, this time very much to the point, though still remaining respectful of and sensitive to the group's ecology of meanings.

Andrea : Yes, that is so, but it is also so that the autistic child somehow always takes over your life again, because when you invite people over, you have to decide: How is my child? Is he in a good mood or is he going to throw a tantrum? You can be as well prepared as possible, and five minutes before your guests arrive, something happens and everything you have prepared was for nothing. Actually what happens is that everything always revolves around the child.

Comment: The first two lines of Andrea's response sounds like an explanation for her own immobility, as if she has tried before, but somehow cannot manage to distance herself from her circumstances for even a brief moment. After this justification she proves this very point by promptly reverting back towards a content which promotes a relatively entropic state.

Bea : Yes, you can't really sit down and talk because the child is always in between and you must first attend to his needs.

Comment: Bea picks up the cue in collusive fashion, thereby enhancing the relatively entropic tendency.

Carol : Yes, but I feel one should actually learn to become hard towards that kind of thing, and when he cries and you know he is only crying because he can't have something he wants, and he can't understand it, you must just ignore him and carry on talking.

Comment: Carol acknowledges her fellow group members, but then responds in a way that seems to indicate a degree of frustration. It is as if she is communicating a need to "break away" at times. This communication, although within the realm of relative entropy, appears to contain an openess for a redefinition of the parameters of the autistic ecology. It is interesting that the group members from time to time seem to

leave covert "hints" that indicate a willingness towards the introduction of an alternative therapeutic reality. It is as if the need for energy from outside the system is denied at one level, but accepted at another level, such that elements of negentropic processes appear at times to be embedded in the relatively entropic state.

Therapist 1 : So, other people can easily say you don't care about your child...

Comment: Therapist 1 again acknowledges the difficulty the members experience, thereby indicating respectfulness towards the group's ecology of meanings or structure. Therapist 1 also seems to identify an important element in the broader ecology, that is, the opinions from the "outside world", those who do not have membership of the autistic ecology. It seems by and large to be a question of "us against them". Contained in the latter might very well be some of the reasons for the evolved impermeability of the boundaries of the autistic ecology, experiencing that which exists on the outside as threatening and thereby isolating the system as a means of survival.

In this regard one could speculate that with the birth of the autistic system, when an autistic child enters the system, the reaction from the environment and the anticipation thereof by the system perturbs the latter and amplifies fluctuations way beyond existing parameters and far away from equilibrium. This seems to send the system into a turbulent spiralling period until such time as it restructures at a new evolved point of near-equilibrium. When the latter occurs, rigid boundaries seem

to have evolved, inhibiting energy flow from the outside. The system therefore continues to function within rigidly defined parameters within an ideosyncratic consensual domain around the autistic symptomatology.

Carol : Yes, because many people..., in the evenings we close him up in his room when he sleeps so that he can't come out of his room when we sleep and hurt himself, and he can also cause such a lot of damage.

Bea : Yes...

Andrea : Yes, I think it also depends on the type of child that you have, whether he is aggressive, or docile and just sits in the corner or something, or whether you have a child like mine that gets epileptic attacks ... you can't lock the door.

Comment: The statement made by Andrea differentiates her from Carol. Where members have agreed on all aspects up to this point, this is the first time that a degree of differentiation appears. Members still share a primary focus on autism, though. On a metaphoric level, the reference to "door" creates the idea that autism can neither be locked out, nor locked away, although there seems to a strong need for that. Andrea appears to voice a desire for negentropy, but she is "locked" into a dilemma: She

seems to feel that taking "time out" would imply abandoning her autistic child.

Therapist 2 : Would you say, if I understand you correctly, that you have adapted quite well to your situation, through the groups that you have had, all the people you have talked to, at this stage?

Comment: Therapist 2 does not repeat the invitation for a redefinition as has been the pattern to this point. Rather, he changes tack by shifting the focus to the adaptive strategies of the members with regards to their autistic children, thereby attempting an alternative pathway towards amplifying the redefintion. It is becoming apparent to the therapists that they have not yet found a fit with the meaning systems of the group and the respective members, and that the entropic processes inherent in the group do not allow for a structural coupling with alternative frames of meaning at this time.

(All group members nod affirmatively.)

Andrea : Yes, I think what was also very important was the two nights a week that he slept over at the school. That is different now, though, since he is in a different school and there isn't a hostel. The evenings that he wasn't at home were so wonderful, you can just sit back and relax or

read a book, or just sit and think. I think every mother needs that, even if it is only for one night, because you never have a holiday or a break.

Comment: Andrea's response is a continuation of her previous statement, and not a reaction to the therapist's question. Over time she has progressed from entropic statements regarding autism in general, to the current focus on her own specific circumstances. She appears to function as a central entropic agent in the group organization. It also appears as if her own ecology contains the most rigidly defined constructs regarding autism, and that she might be a primary focus for intervention.

Carol : Yes, you are never really relaxed, not even when you're sitting down to eat. You are never really relaxed like somebody else.

Comment: Carol's response again, as earlier, differentiates her from other people, thereby amplifying the difference between the autistic ecology and the outside world. One might speculate at this point that she appears most sensitive to the opinions of others with regards to the autistic label, and, as such, potentially also most the most flexible with regard to allowing negentropy.

Andrea : Yes, my son, he is an albino. You cannot go on holiday like other people at the sea. My other

child does not know this kind of holiday. You cannot take holidays at the sea with the autistic child, with the sun and the sand. So you must always ask friends to take my other son along on holiday. So, it actually creates a funny situation.

Comment: Andrea's response is a futher emphasis on her own circumstances, thereby enhancing the relatively entropic tendency. It is as if she is gradually differentiating from a generalized group response towards self-centered responses. Mention was made earlier regarding her position as a central entropic agent. With her reference to her son being an albino, besides being autistic, it appears as if the severity of her circumstances may explain her relative structural inflexibility or non-plasticity. Even more than the other group members, Andrea has isolated herself from external influences.

Therapist 2 : So it is very difficult.

Comment: Therapist 2 joins in, in empathic fashion, thereby still supporting stability. The group exerts a strong "pull" for the therapists to join in the preservation of their relatively entropic organization by limiting the therapeutic amplification of intra-group fluctuations.

Andrea : Yes...

(There is a knock on the door from the observing team, and the group members look at the door.)

Therapist 2 : Please excuse us for a moment. We have to go and consult with the team.

(Both therapists leave the room.)

Comment: The observing team appears to have identified the therapists' impasse, and calls them back for feedback. The frustration of the therapists due to their inability to "break into" the group, is shared by the observing team. Analogous to the position of the therapists, the observing team is experiencing an increasing movement away from their initial state of near-equilibrium (relative entropy) towards an increasing disequilibrium (negentropy) regarding the issue of how to gain entry into the group.

It seems as if an inverse recursive relationship exists between the entropic tendencies of the group, and the negentropic tendencies of the team. As the team moves towards increasing disequilibrium, with the concurrent increase in energy and intensity, energy is released which can mobilize the therapists to potentially enable them to influence the group members' position towards negentropy.

(With the therapists out of the therapy room, Andrea starts talking and everyone else joins in. The conversation centres around the autistic children and experiences regarding the

latter. Everyone appears relaxed and jovial.)

Comment: With the therapists gone, members immediately, and in no uncertain fashion, revert back to the initial group definition. There appears no interest in what the therapists have been attempting to do, apparently indicating that a structural coupling with the redefined frame has not yet been initiated.

(The observing team instructs the therapists to maintain their line of intervention (redefining interactional parameters), but to change the angle slightly in an attempt to get group members to couple with the redefinition. Therapists and team reach consensus that the therapists would focus on the respective family systems at a time before the autistic child became part of the system.

Both therapists return, but the social chatter continues for a few seconds, to the exclusion of the therapists.)

Comment: By excluding the therapists, the group appears to be communicating: "Don't disturb us, we are comfortable and safe in our realm of fixed meanings".

Therapist 2 : It appears as if you people get along very well with one another.

Carol : It must be close on a year now that we have been getting together.

(Everyone agrees on this.)

Bea : Gossiping friends (she laughs).

Therapist 2: : We have talked a bit back there and we've been wondering..., I want to ask the question to each person seperately, get everyone's opinion: What was it like before you had your autistic child, in what way were things different? Maybe you can start, Dianne.

Comment: After having conferred with the observing team, therapist 2 now intervenes from a different angle, though still with the same destination in mind. This is a circular question aimed, in the present context, at a comparison of circumstances. By introducing this question, the therapist attempts to get members to think about the ways in which they have evolved within the autistic ecology, and, as such, enabling him to draw an arc between the past and the present. Since members appear to find it virtually impossible to distance themselves from their circumstances, this angle of questioning attempts to enhance their ability to do so.

Dianne : It was less stressful, umm..., it is difficult to imagine your life without the situation

because I feel it is longer than it was, it takes up so much of your life.

Comment: Dianne's response contains a rationale for the entropic nature of the "autistic ecology of ideas".

Therapist 2 : How long was it in your case ?

Dianne : My boy is eight years of age now.

Therapist 2 : In what way were you different before the time? How did you change to adapt to your child ?

Dianne : I became more tough. I'm very defensive now. I've got this very defensive thing about my child, where in the old days I was very soft. You know, people could say what they wanted to, to me, and I would never fight back. I've become tougher, and that's what a child like this does to you. You're almost waiting for someone to pass a comment. In that way maybe it's a good thing, I've become tougher.

Comment: Dianne's response supports Carol's earlier reference to the external environment, pointing to the threatening way in which it is experienced from within the autistic realm. The member's reasons for the entropic nature of her ecology appears to be contained in this statement. The entropy appears to

manifest as a means of protecting the families of autistic children, and has developed over such an extended period of time that a structural coupling with a system of different structure seems particularly difficult.

Therapist 2 : Let's hear what Carol has to say.

Carol : In my case it's also..., all of our lives change I suppose..., like Dianne it has also made me tougher.

Comment: Carol takes the que from Dianne and confirms the latter's response. This response seems to substantiate the above comment regarding the "toughness" of their circumstances and the difficulty getting the members to accept the invitation for a redefinition of interactive parameters.

Therapist 2 : Okay, that's the way you are now, but what were you like when you weren't tough.

Carol : I don't know, I was very self-conscious, but now I don't care about what others say. Actually he is beautiful, people can't actually see he is autistic (looking at Andrea). I would say that now I know more about what life is all about.

Comment: Although Carol differentiates herself from the group by indicating that her child, who apparently unlike the other

autistic children, does not show obvious signs of autism. Yet, her response is a direct reference to her child and the autistic symptomatology, and, as such, is still of a relatively entropic nature.

Dianne : Your priorities in life change.

Carol : It affected my husband much more than me, because he is very tense. I think I am the strong one in the house.

Comment: Carol's response includes her husband for the first time in the conversation. Considered together with the differentiation in her previous response, she appears to be deviating from the normal conversational content. Though still communicating about the effects of the "autistic" life style, there appears to be a slight deviation from the consensual group norm.

Therapist 1 : What happened to you in the beginning ?

Carol : In was terrible...

Therapist 2 : I can see now that it is extremely difficult for you to imagine yourselves separate, completely seperate, from your children, away from your children. It might sound strange when I put it like that...

Comment: Therapist 2 supports the entropic group tendency by responding in supportive, empathic fashion, realizing the difficulty the group is experiencing in structurally coupling with the demands of the therapeutic situation, as defined by the therapists.

Carol : Yes but you can't actually see yourself away from him, because your life is so integrated with all his things. Do you understand what I mean, your life revolves around the child, and you actually have to do it, otherwise you would go to pieces.

Comment: Carol's reaction again focusses the attention on her inability to structurally couple with alternative frames of meaning in negentropic fashion. With her response, Carol's use of the metaphor "go to pieces" appears to indicate to the therapists what she considers to be the implications of the therapeutic invitation towards redefining parameters. Should she, or the group for that matter, accept the invitation, they might "go to pieces". This creates the impression that the group's rigidity regarding certain constructs might rather be a function of their anticipated fear than an inability to negotiate an alternative definition. These mothers are caught in a dilemma: Although they desperately need to individuate more fully, they feel that they simply cannot afford to do it.

Therapsist 2 : I have been wondering, two of you have mentioned that you have the opportunity to leave your children at the hostel or elsewhere at times, in order for you to have time to yourselves. Do any of the others have that opportunity ?

Comment: Therapist 2 again changes "tack" in preparation for the introduction of an alternative idea into the group.

(Dianne explains that she does not have that opportunity.)

Therapist 2 : It sounds as if you are saying that you also need some time for yourself, Dianne.

Dianne : Yes, I think so. It is funny though, the minute you have such a time, you feel so guilty. It's a strange thing, you feel guilty about enjoying yourself. I don't know if you understand?

Comment: This response is similar to Carol's statement about "going to pieces". There appears to be a strong need to do and think in an alternative fashion, but fluctuations are damped by certain rigidly defined constructs, for example the idea that one would "go to pieces", or the feelings of guilt that accompany any enjoyment. The central premise seems to be one of not being entitled to pleasurable experiences. This ensures that the autistic ecology remains at a position of relative entropy. The latter part of Dianne's response seem to define the

therapeutic team as "seperate" from the autistic ecology. The therapeutic team seems to be experienced as yet another part of the wider ecology that does not have an understanding of autism.

Carol : You catch yourself time and again thinking about your child.

Comment: Carol confirms Dianne's "dilemma". It is also as if she is explaining that what the therapists are expecting is not that simple. It is becoming apparent that the therapists are not really acknowledging the communications from the group members, to the extent that a "tug of war" has developed: The group members pulling towards their position of relative entropy, and the therapeutic team pulling towards negentropy.

Therapist 2 : So would you say that with each and every one of you there is the need to be on your own from time to time ?

Comment: Therapist 2 builds on his previous statement, yet again inviting the group for a redefinition of parameters.

(All the group members agree.)

Therapist 2 : We have this time here now to spend together, and I wonder whether we can use this time as that time that you all need so badly. Where you

can spend a little time with yourselves, like "time out", where we can look at you as people, not forgetting about the kids, but focussing on you as individuals, with your own personal needs. I really do understand that it is impossible to distance yourself from your autistic child. What I'm asking of you is not to do that, but to take a look at that person that is inside you, and that you might have forgotten about. Do you think that we can use this time to do that ?

Comment: With unfaltering tenacity, therapist 2 again invites the group to open their boundaries and to couple in a new way. This attempt at introducing new parameters has been met with entropic moves from the group since the start of the session. Realizing this, the therapist has attempted a number of different angles, but somehow has entered a "cul de sac" every time. This present invitation is done to the point and in greater detail than before, in an attempt to give greater clarity to the therapeutic request.

(Group members look briefly at one another.)

Carol : Yes, because I think not many of us know ourselves any more.

Comment: Carol's response seems to hit the central issue, and

has a strong emotional quality. It appears that all the energy within these families with autistic children is directed towards the autistic child. Over time the system restructures itself around the symptom of autism, with the latter "consuming" all available intra-system energy. The impermeability of boundaries inhibit energy from entering the system from external sources, and the available energy which is internally produced by the system is directed towards maintaining the position of relative entropy around the autistic child.

Therapist 2 : Don't you think one forgets about oneself at times ?

Comment: Therapist 2 had the opportunity here to focus on this critical area and facilitate an introduction of new parameters. He does not pick up on this, though, and rather responds at a relatively superficial level. This seems to indicate a certain inflexibility on the part of the therapist, as if he has started to think so rigidly within the desired meaning that he wants to introduce, that he has lost perspective of the group. One might speculate that the therapist, and possibly the therapeutic team, has become so tightly organized around the idea of pushing the group towards non-equilibrium, that their own initial position of negentropy has evoloved towards a point of inflexibility and relative entropy. The team seems to have lost their "plasticity".

(Bea and Carol both reply in the affirmative.)

Carol : As if not much has remained.

Comment: Carol's reply seems to refer to the loss of her sense of self. This is a response filled with sadness: a short statement which expresses, in concentrated form, a great deal of pain and suffering. The entrenched entropic pattern which preserves these families' organization, ultimately leads to inflexibility, emotional sterility and self-alienation.

Therapist 2 : Don't you think you guys are dealing yourselves a bit short. You sacrifice so much for your children since they are so precious to you.

Commentary: Therapist 2 picks up on the process, and responds on the same level of emotionality. For the first time in the session there is heightened intensity. This intensity can be utilized to create the therapeutic conditions which can promote a new structural coupling between the therapeutic team and group members.

Carol : Umm... yes.

Dianne : That's true.

Therapist 2 : And in the process you forget about yourself.

Carol : Hmm...

Comment: Two of the members agree, apparently indicating a need for, and willingness to move towards negentropy. Members appear to have opened up the possibility for structural coupling with the invitation by the therapists to extend the parameters which used to calibrate their functioning. It is interesting that Andrea, who was prominent in the conversation of entropy, has now remained silent, seemingly unable or unwilling to join in the move to accommodate to the therapists' structure.

Therapist 1 : What do you think, Andrea and Bea?

Comment: Therapist 1 realizes that Andrea and Bea have withdrawn, and wants to clarify their positions with regard to the other two members' shift.

Bea : Yes, one can do that. My child was away for a week now, and I had the oppurtunity to do my own thing. (She goes into an explanation of the routines surrounding her child, but makes no mention of herself as a person.)

Comment: On a content level Bea indicates a willingness, but disqualifies this by reverting back to talking about her child's autistic symptomatology.

Therapist 2 : Yes... see, we have decided now, we've reached consensus that the time here will be your time exclusively. So, I want to know what you are all

about, what makes you tick as a people.

Comment: Therapist 2 reacts by confirming the drive towards negentropy. By doing this, though, he is also entrenching his own inflexibility, as referred to earlier.

Bea : I still feel guilty about that.

Comment: Bea again voices her difficulty to acknowledge her need for individuation within her restricting circumstances. The "guilt" she refers to appears to be the "plaster" which keeps the autistic organization intact and relatively entropic. It can be hypothesized that the mothers feel responsible for their children's handicap, and therefore they must atone by sacrificing themselves.

Therapist 1 : Would you feel guilty if we used the time we have for the next couple of weeks, to not talk about the autistic child?

Dianne : How do you expect mothers of autistic children not to talk about their children?

Comment: Dianne's response seems to make the covert overt, indicating that the therapist's suggestion is simply requesting the impossible. The response has a challenging tone to it, with Dianne appearing notably perturbed.

Bea : Look, they are there.

Comment: Bea confirms Dianne's statement, in the process emphasizing the group's return to a relatively entropic unity.

Therapist 1 : I think we realize that, but I'm wondering whether you are willing to talk about something other than the autistic child.

Comment: Therapist 1 again emphasizes the invitation to take an alternative position. She is not reacting to the stated inability of members to redefine parameters, but rather frames it as a possible unwillingness.

Carol : Yes.

Dianne : Will we be able to, that is the question.

Comment: Dianne counters the therapist by indicating again that she experiences the group's immobility as due not to will, but to inability. She seems to be communicating to the therapist that she is not being heard.

Therapist 1 : Is this something you would like to do ?

Comment: Therapist 1 again does not seem to "hear" Dianne's statement, and indicates to the group that it is a matter of their own choice. The therapists have become increasingly

inflexibible in their drive towards negentropy. The therapeutic process appears to have become polarized, with the therapeutic team at the one extreme, and the group at the other. The therapists seem to be indicating to the group: "We are only prepared to talk to you about yourselves, and nothing else". The group on the other hand is communicating: "It is not as if we do not want to, we simply cannot, or do not know how to".

Carol : Yes...

Therapist 1 : Andrea, would you be willing to try that ?

Andrea : I will try.

Therapist 1 : Look, it is going to be hard work, it is something you are not used to.

Comment: On a content level, certain members commit themselves.

Carol : Yes, because where-ever you go everyone is always talking about your child.

Andrea : When you make friends, you always make the best friends with people who also have an autistic child, because you understand one another.

Comment: Carol's and Andrea's responses indicate their typical

pattern of structural coupling in a wider community. These responses contain two important elements that have surfaced throughout the session, namely the reaction from the environment versus the security of the autistic ecology. These elements seem central in the evolution of the ecology towards self-preservation. "Autistic coupling" appears to manifest at the exclusion of anything "non-autistic", to the extent that not only the child, but the whole of the ecology, becomes "autistic". Inherent in Andrea's response could also be a communication about the therapists not understanding, and therefore remaining alien to the group members.

(A brief negotiation ensues during which consensus is reached that group members would attempt to focus on themselves as individuals. Subsequently, there is a momentary uncertainty and reservation amongst the members, and it appears as if no-one really knows what to say or do.)

Comment: Once the group has reached apparent consensus regarding the redefined consensual domain, the process changes to uncertainty and reservation in the face of change. On a content level, members verbalize a willingness to accept a redefinition of the parameters and open up boundaries in order to allow energy from the therapeutic team to enter the group ecology, but on a process level they display an inability to draw energy from within the autistic group ecology in order to become negentropic.

Carol : Maybe we can say what we do when we're not with our children.

Comment: Carol's reaction is a continuation of the verbalized willingness for change, but also indicates an incomplete comprehension of the therapeutic request for change. Her emphasis is on physical activities when her child is not present, and not the personal needs and emotions that the therapists appear to have in mind. Viewed against the background of the session and the broader "ecology of autism", though, this response by Carol seems to display a profound shift away from the initial position of relative entropy towards initiating a process of a more flexible structural coupling with the therapeutic system.

(The remaining members agree.)

Therapist 1 : Should you not have had autistic children, how would things have been different ?

Comment: Therapist 1 does not seem to really acknowledge the members' willingness to attempt a redefinition of the parameters, but rather restates the request, thereby reflecting her own inflexible structure. It is as if the group members are more willing to make the transition than the therapists at this point.

(In the ensuing discussion the members regularly return to the

autistic child. They intersperse this with talk about holidays and freedom. Andrea remarks that a parent of an autistic child tends to become autistic herself over time.)

Andrea's statement seems to verbalize a central issue to the "autistic ecology", namely that the autistic symptomatology is experienced as permeating the whole of the ecology to the extent that the system itself becomes "autistic". In this comment on her own circumstances, Andrea exhibits strong "push" towards negentropy. It is as if she has distanced herself from her circumstances in order to obtain perspective.

Therapist 2 : If I had to ask you (pointing to Bea) who are you without your child, would you be able to tell me ?

Comment: Therapist 2 again reformulates the therapeutic request in a bid to invite a more personalized emotional reaction.

Bea : I don't know, I've never thought about it in such a way. I do know that I'm not the person I used to be, though.

Comment: This remark indicates that the invitation towards a redefinition of parameters might have been accepted by Bea. Her response style is now more explorative and tentative.

Therapist 1 : What would you say has changed.

Bea : I think I am different now, more aggressive, defensive... I also have a better understanding of other people's situations and problems. I can cope better with things. Before I couldn't do that.

Comment: Bea's response indicates that she might have found a way to structurally couple with the redefinition. Her response appears to be free of entropic elements, and it seems as if there is an initiation towards an opening of boundaries and negentropy.

(Later on in the session the therapists focus on the skills the group members had to acquire in a short time, in order to cope with the arrival of their autistic children. Thus the emphasis is moved from the child to the mother's acquired skills that serve not only the child, but the whole of the mother's interpersonal context. The discussion focusses on the acknowledgement of their coping abilities under adverse circumstances. The session terminates with the scheduling of the following fortnightly session.)

Comment: Throughout the rest of the session the therapists keep pushing towards negentropy by focussing on members as systems both part of, and at the same time seperate from, their autistic children. There appears to have been a redefinition of the interactional parameters, not only of those of the group members, but also of the therapists. The latter seem to have

shifted from their almost rigid initial redefinition regarding the individuation of members, towards a position of greater flexibility whereby the members' position as "mothers of autistic children" are not negated, but acknowledged.

Concluding Remarks

The above extract represents merely a certain part of the initial session of a therapeutic sequence of five sessions. This particular extract was selected since it illustrates most clearly the tenacity of an entropic tendency in the group therapy process. It also illustrates the development from seperate realities towards the co-evolution of a shared reality through structural coupling.

The tendency towards relative entropy within the autistic ecology appears to be a function of both group processes, and processes within the wider ecology of autism. Members appear to be caught in what can be termed the "autistic dilemma": Members are aware of their own emotional immobility, but show an inability to draw energy from the wider ecology in order to amplify fluctuations beyond the existing interactive parameters towards new dynamic regimes of functioning. At certain times during the session, the therapists, too, manifested entropic tendencies, particularly as it relates to their rigid drive towards negentropy, which, paradoxically, itself became entropic.

In the therapeutic context, the therapists served as catalysts in order to energize (perturb) the members towards

structurally coupling with new or alternative frames of meaning and towards subsequent greater complexity of organization (negentropy). By inviting the group members to redefine their existing "autistic" parameters, the therapists attempted to, apart from providing a source of energy from outside their own ecology, facilitate a process by means of which existing energy from within the autistic ecology could become available to the group in order to evolve towards a state of negentropy and more complex organization.

The relative entropy of the ecology appeared to have drawn the therapists and observing team into an "entropic web" so to speak, where the therapeutic team seemed flexible (negentropic) in their initial approach, but seemed to eventually become inflexible (entropic) in their tenacious drive towards negentropy. The latter exhibits a paradoxical element, with apparent negentropy being introduced in an entropic fashion. Despite this, however, group members did ultimately appear to have accepted the redefined therapeutic frame.

Finally, it needs to be emphasized yet again that the above discussion represents mere distinctions as drawn by the author as participant-observer, and as such these distinctions do not represent any objective truth, but bears meaning only within this particular context of discussion.

The following and final chapter contains a conclusion of the present study and some recommendations for future studies.

CHAPTER 5

CONCLUSIONS: DELINEATING CONCEPTUAL BOUNDARIES

Introduction

Paradigms are time and space bound, interwoven with the contextual fabric of a particular world view and consciousness. In the same way that the scientific theories of Newton and his followers, regarding the natural world we live in, have sculpted our images of the existence of an "objective reality", these have given way to the evolution of alternative epistemologies and paradigmatic convictions.

Developments in the natural sciences towards the mid-1900's had an influence on the human sciences, or rather, on a group of theorists in this fraternity, and led to the evolution of an ecosystemic epistemology. Models within the latter utilized the principles of simple-, or first-order, cybernetics as a vantage point, and, in time, evolved towards reflexivity of thinking and recursiveness of influence, to a point where the observer was included in that which is observed. According to this constructivist view of the world, verbalizations about the world, or "reality", cannot be regarded as an objective reflection thereof, but merely as artifacts of subjective mutual negotiations. As such, we can gain access to the world only in the form of consensual linguistic meanings which only have meaning in a particular domain or context.

This study investigated the relevance of Maturana's second-order cybernetics and the evolutionary theory of Prigogine, as descriptive metaphors for group psychotherapy processes. While these perspectives had been utilized in the family therapy context, they had not formally been applied in group therapy.

Combining the Theory of Structure-determinism of Maturana and the Evolutionary Theory of Prigogine

Both the theory of structure-determinism and the evolutionary theory of Prigogine were utilized as guiding principles in conducting the group therapy session, and as descriptive metaphors for analysing the group therapy processes retrospectively. This was done within the framework of second-order cybernetic principles. These two theoretical orientations are dissimilar to one another in certain aspects (which will be elaborated on in the following section), yet they can be regarded as complementary parts of a whole. It was therefore decided to utilize them concurrently in order to explore whether their combination would produce a more holistic conceptual map for group therapy.

The rationale underlying this "blending" of rather distinct descriptive metaphors was as follows: Maturana advocates a structure-determinism, that is, structure being central and thereby determining process, whereas Prigogine conceptualizes process as being the central determining principle. Viewed through a second-order cybernetic lense, this distinction

between structure and process appears arbitrary, since both represent different sides of the same systemic coin. Influence is recursive in nature: Structure determines process which determines structure, and so on.

Central to the second-order cybernetics of Maturana is the concept of autonomy. The latter refers to the way in which the system creates, regulates, organizationally closes, and transforms itself, and specifies that, that which is conceptualized as a system can not be isolated from the observer's conceptualization thereof. The system's organizational closure conceptually represents the identity of the system, the class of entities to which it belongs, and according to Maturana (1980), the system disintegrates when it moves outside of its own level of organization.

Structure, on the other hand, denotes the nature of components and relations that actually constitute a particular unity and make its organization real. Maturana (1980) states that structure determines the potential interaction in which a system can participate. Systems are organizationally closed, but not interactionally, implying that they are open to energy. The nature of a system's structure, not the environment, determines the system's autonomous individuality and behaviour, and is referred to as **structure-determinism**. Thus, change is conceptualized as a change in structure due to a structural perturbation, while the organization remains intact.

Prigogine's evolutionary theory, rooted firmly in the natural science of physics, does not address the issue of organizational closure (observer-dependence) and

structure-determinism, thereby seperating him from the constructivist position and placing him rather in a first-order cybernetic perspective. Prigogine conceptualizes living systems' boundaries as manifesting "openness" or permeability, thereby allowing transcontextual flow of energy. In this regard, change is conceptualized as being of evolutionary nature. Evolution is process-orientated, determined by the energy within and outside of the systemic boundaries, and the potential of this energy to facilitate a process whereby fluctuations are amplified to beyond the existing system parameters. When this process occurs, the organism evolves towards a new level of complexity. Dell and Goolishian (1981, p.179) state the following:

> The essential aspect of "order through fluctuation" is that at any point in time, the system functions in a particular way with fluctuations around that point. This particular way of functioning has a range of stability within which fluctuations are damped and the system remains more or less unchanged. Should a fluctuation become amplified, however, it may exceed the existing range of stability and lead the entire system into a new dynamic regime of functioning. An autocatalytic step or surge into positive feedback is needed to obtain such instability.

Should an observer choose to look beyond the arbitrary dichotomy of structure versus process, and treat them as recursively connected cybernetic complementarities, he/she will find that a combination renders a cybernetically more complete view of the process of change and the relationship between

observer and observed, describer and described. The descriptions that the therapist in general, and the group therapist in particular, gives of therapeutic processes, enables him/her to subsequently intervene in a way which is coherent with his/her descriptions, and appropriate and beneficial to the client. In this study the observer/describer remained firmly rooted in the epistemological convictions of second-order cybernetics, and therefore punctuated descriptions accordingly.

The Recursive Relationship Between Therapeutic Descriptions of Process and Interventions

Descriptions of process in the therapeutic domain ultimately serve the purpose of creating a theoretical vantage point for effective. and purposeful interventions. Should the therapist fail to intervene in coherence with his or her descriptions, the descriptions either are not adequately formulated, or the therapist is ignoring conceptual theoretical boundaries. Within the second order-cybernetic perspective, a recursive relationship is conceptualized as existing between description and intervention, to the extent that a particular description is punctuated as generating a particular intervention, coherent with the description, which, in turn, potentiates further descriptions, and so forth. By including the describer in that which is being described, he/she will by definition be included in the intervention, and in subsequent descriptions.

Within this conceptualization, it follows that the level of complexity, or the richness, of the descriptions of therapeutic process will recursively influence the complexity or richness of the therapeutic intervention.

When viewing the transcript and analysis in its entirety, the merit of the descriptive metaphors under discusssion becomes apparent. These particular theories provide a sufficiently complex language needed to describe the ebb and flow of intensity within the group ecology, and between the therapeutic team and the group in recursive fashion. In addition it also places the observer in a position to track the evolution of the group process from a phase of disorder (relative entropy), through an evolutionary process, towards a phase of order or pattern (negentropy). Thus, the theoretical perspectives utilized by the group therapists guided their descriptions of group processes, and recursively shaped the therapeutic interventions, which in turn generated new or more complex descriptions of process, etcetera.

Evaluating the Coherence Between Description and Intervention in the Group Therapy Session

The fundamental question which guided this study was to explore whether two distinctly different, but complementary, theories could be utilized as descriptive metaphors in group therapy in order to facilitate the formulation of interventions which are coherent with these descriptive metaphors. From a

constructivist viewpoint, theories cannot be reified, and are merely used as descriptive metaphors. By utilizing two complementary theoretical metaphors, the ultimate test for the utility value of these theories as descriptive metaphors is, as noted above, the quality and complexity of the descriptions and the interventions their application generate.

Evaluating the quality and complexity of the descriptions and interventions in itself is a highly subjective exercise, since no external "objective" criterion exists as a point of reference. In addition, any evaluation is a set of arbitrary punctuations, a process of creating rather than discovering meaning. Ultimately, interventive impact and therapeutic success can be the only measure of effectiveness, and can hardly be established by a study of this nature. What will be furnished, though, is a subjective evaluation of the group therapy session transcript and analysis.

In the introductory section to the transcript analysis (chapter 4), it was stated that the rationale for the particular cluster of interventions utilized by the two group therapists was the introduction of new or alternative meanings into the therapeutic context by means of a redefinition of interactional parameters, and the amplification of intragroup fluctuations beyond the existing range of stability, in order to lead the entire system into a new dynamic regime of functioning. Thus, even before the therapists initiated the group session, they conceptualized an evolutionary description (rationale) of the interventive processes for the session. By doing this a theoretical vantage point was created by means of which

descriptions of group processes could be made, and against which the coherence of interventions could be evaluated.

During the discussion regarding previous group sessions which the group had had, the therapists established that the ecology of ideas of both the group and respective family systems appeared rigidly organized around the symptom of autism. The group therefore shared a concensual domain of meaning regarding autism which excluded the two therapists and the observing team. This description of group process enabled them to devise an interventive strategy aimed at redefining interactional parameters, introducing the notion of "taking time out".

The introduction of the idea of taking "time out" from their autistic children initially lead to some confusion, with the members apparently unable to understand the therapeutic request. The therapists were able to describe this as an inability of the members at the present time to structurally couple with the "new" meaning inherent in the redefinition, and a systemic restriction of fluctuations between rigidly defined parameters to preserve a position of "near equilibrium". A potentially complex description of this nature indicates that they needed to reconsider the way in which they were introducing the redefinition of parameters. In accordance with their description, the therapists initially joined with the group, and then intervened in a more subtle fashion.

The group processs evolved to an interesting point where the therapists' attempted to push the group to a point of coupling with the redefinition (negentropic process) actually resulted in they themselves entropic in their actions. The

therapists apparently did not recognize this and failed to arrive at a description which included themselves, and consequently their intervention appeared ineffective at that stage. This again emphasizes the importance of coherence between theory and description, and description and intervention.

The observing team identified the therapeutic impasse. They arrived at a description of the group process, and in coherence with their description, intervened by signalling to the two therapists to withdraw for the therapeutic discussion. The observing team shared their process descriptions with the therapists, who returned to intervene at a different level, based on the descriptions they had received from the observing team.

From time to time the group members seemed to deliver covert "hints" of their need for change in their reactions to the therapeutc perturbations. The therapists reached the point in their descriptive conceptualization where they identified a need within the group for energy from outside of the autistic system, but a simultaneous denial of this need at a different level. This description enabled them to intervene at the appropriate level of meaning in order for members to initiate a structural coupling with the redefinition of parameters.

Throughout the group therapy session, each therapist is involved in a descriptive process dialogue with him/herself, forever formulating descriptions, intervening, describing interventive process and group reaction, intervening and so on. The observing team is involved in the same recursive process, and at the times when the two subsystems interact, they

co-evolve "new" descriptions which can facilitate new interventions, and continue in an ever-evolving spiralling fashion.

Concluding Remarks

It is this author's contention that the second-order cybernetic and evolutionary perspectives, as distinct, though complementary theories, can be successfully applied in the pragmatics and aesthetics of group therapy, on condition that the therapist remains faithful to his or her epistemological convictions of observer-inclusiveness. The paradigm which was utilized appears to have provided a greater degree of descriptive complexity and understanding regarding group therapy processes, enabling the therapists and the observing team to intervene in coherence with, and in recursive fashion to, their descriptions. This conceptualization of the relationship between description and intervention within the present paradigm is considered to facilitate greater therapeutic impact and effectiveness.

Shortcomings of the Study

A shortcoming of the present study is considered to be the fact that the proposed cluster of ideas remain speculative. The ideas have not been sufficiently substantiated in different group therapy contexts, and the only evidence which has been offered is a single group therapy session. Other studies are therefore needed which should attempt to contextualize the ideas in this study further.

Another shortcoming may well be the level of complexity of descriptions of group processes in the analysis of the text (chapter 4). Due to an absence of existing literature regarding the theoretical perspectives as they were utilized within the group therapy context, the descriptions and hypotheses, and subsequent interventions, were an initial attempt, and, as such, do not claim to be comprehensive.

Ultimately, however, given a constructivist view of the world, no description, hypothesis, or remark has any validity of itself, and attains meaning only relative to the describer and the context within which the latter describes.

Recommendations

As a logical consequence of the shortcomings identified above, it is recommended that other researchers should consider further exploration of this particular field of study. In the event of any future studies of this nature, the present study should be considered as a vantage point in order to both refine and extend the potential of the theoretical constructs as descriptive metaphors for intervention in the group therapy context.

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